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The Willis Nurseries

OTTAWA, KAN.

Catalogue of
Fruit and Ornamental Trees
and Shrubs

A. WILLIS, PROPRIETOR,
OTTAWA, KANSAS.

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We take much pleasure in presenting our patrons and others with our Illustrated and Descriptive Catalogue of Fruit Trees and Ornamentals, Shrubs, Plants, etc. We solicit your patronage. All inquiries and orders will receive careful and prompt attention. **A. WILLIS, Proprietor.**

THE WILLIS NURSERIES

IN PRESENTING this new edition of the catalogue of the Willis Nurseries to our customers and the public, we wish first of all to express our sincere thanks for the good patronage and the many kind words that have been extended to us. This patronage has enabled us to continue and to enlarge our business, and to increase the amount of goods we could offer our customers year by year, and the kind words have been a help to us more than we can express. We gratefully acknowledge them. And for the future, may we ask, if we have served you to your liking, will you kindly tell your neighbors and friends; and if we have failed to please you, will you kindly and promptly let us know at the office, and we will take pleasure in doing all that it is possible for us to do to make your dealings with us in every way satisfactory to you.

We should be glad to call the attention of those who see this catalogue to the work done by the nursery. Many years ago, when this country was settled, and this whole country was one open prairie, a sea of waving grass, the husbandmen broke up this prairie and built homes—some plain cottages, and some of them larger and more comfortable. But still there were no orchards; no shade, or ornamental trees; no roses; no shrubs; no climbing vines. Then came the nurseryman, and the husbandman planted his products. Now the grassy plain has become a smiling landscape, set with hedges and forest tree plantations, shade and ornamental trees, orchards and vinyards, till today one can hardly believe this land of groves and orchards, vinyards and small fruit plantations was once a grassy plain without a tree that would protect man or beast from the heat of the burning sun in summer or the freezing blast of winter. This catalogue refers with pride to the work of the nurseryman in this improvement in our country, and begs leave to say that the nurseryman is ever thoughtful of the best interests of the country, and is ever ready to contribute the best of his products to its betterment.

The Willis Nursery has never been so well able to meet the demands of a large trade as we are now, and we shall in the future, as in the past, use our best efforts to make all orders sent us profitable to our customers. We seek a liberal share of the patronage of those needing goods in our line.

We have during the past year added to our storage and packing rooms a building one hundred feet square, giving us now facilities for handling goods in our line equalled by very few firms in the country.

CORRESPONDENCE.

All correspondence, whether you wish to buy or not, will receive prompt and careful attention.

ENTOMOLOGIST'S CERTIFICATE.

Our nurseries are each year inspected by an entomologist authorized by the State Board of Agriculture, of the State of Kansas, to do this work and all shipments are made under his certificate of freedom from insect pests and disease.

ADVICE TO CORRESPONDENTS.

1st. Please always write plainly being especially careful about the name and always give the name of your postoffice.

2nd. We will be responsible for money when sent us by postal order, express money order, bank draft, or registered letter, but not otherwise.

3rd. It will be a great convenience to us and many times a benefit to you to send in your orders early.

4th. When the cash is sent with the order, all orders for $1 or more will be packed and delivered at railroad or express office free, and if the order amounts to $5 or more, transportation charges will be paid to nearest freight or express office. All trees will be carefully labeled and packed.

5th. Substitution. We will fill all orders as near as possible as requested, but when, as is sometimes the case, we run out of particular varieties, we will, unless otherwise directed, fill the order as given as far as we can and substitute good varieties for those we cannot supply.

6th. Our customers will please designate the route over which they prefer their goods shipped. We will deliver our goods to the forwarders in good order, after which our responsibility ceases and the purchaser must look to the forwarding companies for redress for any loss the goods may suffer while in transit.

7th. Our customers will please **notify us at once** in case of any shortage or errors in filling their orders, that we may make proper amends. We are anxious to give all our customers the full worth of their money and to retain to the fullest extent their confidence.

The packing season with us usually begins from March 1st to March 15th and continues from April 15th to May 1st in the spring, and in the fall from about October 10th to the 1st of December, and sometimes favorable weather continues till Christmas.

In this catalogue we make no pretence to giving the largest assortment, but we have tried to select a list of varieties that will when planted and cultivated to fruitage give good returns for the investment made.

WARRANTY.

We will warrant our stock true to name to the extent that we will refund the money paid or replace free of charge any stock sent out not true to name, but in no case could we make a warranty that would go farther. We shall at all times use every care to have everything sent exactly as represented.

PLANT YOUNG TREES.

We cannot too strongly recommend to our customers the procuring of young trees, especially for orchard planting, instead of selecting the largest that can be had, to secure a more immediate effect. Young trees cost less at the nursery, also in freight, handling and planting; they can be taken up with more perfect roots, and will become sooner established in a new location.

They can also be more readily trained to any desired shape. The largest and most successful planters invariably select young and thrifty trees as the surest in the end to give thorough satisfaction.

For small grounds, or street planting, where it is necessary to make a show as soon as possible, large trees are often desirable, and when handled with care should not fail to do well, but with the general planter the average of loss will be much less and both time and money will be saved if young trees are selected to commence with.

We have been slow to recommend novelties, believing our customers would in the end be better satisfied with the good returns that can be realized from the planting and careful cultivation of the known reliable kinds. There are numerous candidates for favor offered to the planter every year, but the list of kinds our best horticulturists consider thoroughly reliable is not rapidly increasing. Would I then advise my customers to plant no new fruits? Hardly, and yet if you plant to raise fruit the most certain way is to plant well tested successful kinds. If you plant new fruits, plant no more than you are willing to risk in an experiment. If you have means and leisure to devote to them, there is nothing you can do as means of enjoyment within your reach that will afford more satisfaction than to experiment with horticultural novelties, and the effort to produce new fruits that will prove valuable yourself; and should you succeed in producing a new fruit that has real value, the public want it, and are willing to pay well for it.

SOIL, ITS PREPARATION, EXPOSURE, ETC.

Any soil that will grow good crops of corn and small grain will answer for fruit trees, etc. Eastern and northern exposures are usually considered the best, but perhaps more depends on the quality of the soil and its preparation and after-cultivation than on the exposure. If the ground is naturally wet, spouty and cold, artificial draining is necessary before planting. Any ground should be well prepared by twice plowing, using the subsoil plow after the common one at the second plowing, and stirring the ground twenty inches or more deep, the deeper the better; this is not only for trees, but for small fruits as well. On good rich soil manuring will be unnecessary, but on poor soil, fertilizers, such as decomposed manure or compost, should be applied freely. Never grow small grain in the orchard, but always some crop that will require some cultivation, and the rows of trees should be kept cultivated at least until the month of August.

Transplanting. When the trees are received, open the bundles and heel in so that mellow earth will come in contact with all the roots. It may be necessary to apply water to moisten the soil; before planting, the ends of all bruised and broken roots must be cut sloping from the under side. If the soil is properly prepared the holes may not be dug much larger than to receive the roots in their original position. In plainting in sod in yard or lawn the hole should be dug four to six feet in diameter and a little deeper than is necessary to set the tree, always using good mellow soil in filling in, pressing the ground well about the roots, and in such a manner as to leave them in their natural position as much as possible. Water freely used in planting helps to settle the earth about the roots and a mulching of three or four inches thick and four to six feet in diameter should be applied as soon as the tree is planted, but the earth should be well pressed about the tree before applying the mulching.

DEPTH TO PLANT.

About the only correct guide that can be given in regard to the depth to be planted is that when the ground is well pressed about the tree or plant it

will be as deep or a little deeper than it stood in the nursery; and in this it is well to bear in mind that the roots of some trees such as the Standard Pear, strike their roots deep, and require a deep hole even to plant them as deep as they were in the nursery. Dwarf trees should be planted so that all the stock on which they are worked will be under the ground.

PRUNING.

Cut back one third to one half of the last season's growth and one year old Peach to almost a bare stock and headed back to the desired height for forming the top; the buds on the body of the tree will make a better growth and form a better top than if the side branches are left on. It is not advisable to do any of this pruning until just before the buds start in the spring. Remove the labels before the trees begin to grow.

WINTERING TREES.

when procured in the fall. Procuring trees in the autumn for early spring planting is recommended when the purchaser is not prepared to plant in the fall or prefers spring setting or where the winters are too severe to set out young trees and plants in the fall; the greatest advantages in doing so are that when the roots have been cut or pruned, it will be found upon taking them up in the spring that a callous has been formed ready for the producing of new rootlets, and the trees being planted without much exposure as soon as the frost is out of the ground, will become thoroughly established the first season and will make twice the growth of late planted trees; and the labor of planting is then done before the rush of the spring work sets in. To insure success select a dry spot of ground where water will not stand during winter, and where no grass or litter will invite mice. Dig a trench from three to four feet wide according to the amount of trees to be heeled in and deep enough to admit one layer of roots and sloping enough to let the trees lay at an angle of about thirty degrees, throwing the earth on the back part of the trenches so as to make a more perfect slope on which to lay down the trees. Put in one layer of trees, placing the roots as close together as can conveniently be done, cover with well pulverized soil well up on the bodies and as carefully worked in about the roots as if they were being planted; then add another layer of trees overlapping the first and continue as at first until all are healed in, throwing the ground well up around the trench, and where the winters are very severe it is advisable to cover the tree entirely up with earth. Evergreen boughs or coarse straw or corn fodder can be placed over the tops, but not thick enough to admit of a harbor for mice. The roots should be pruned before laying them down in the fall.

TREATMENT OF TREES, ETC.,

that have been frozen in the packages or received during frosty weather. Put them unopened in a cellar or some other cool protected place free from frost, or cover them up heavily and entirely with earth until they are fully thawed out, when they can be unpacked and planted or placed in trenches until convenient to plant; treated in this way they will rarely be injured by freezing.

June 20th., 1905.—Our last delivery has given good satisfaction. They all speak very highly of the quality of the stock and the condition it came to them. —W. J. French.

Nov. 11th., 1905.—Enclosed find draft for $83.44. Thank you. Trees were all in good condition, well pleased with them.—John Green.

SUITABLE DISTANCES FOR PLANTING.

Apples, Standard	25 to 40 feet	Quinces	10 to 12 feet
Apples, Dwarf	6 to 8 feet	Grapes	8 to 10 feet
Pears, Standard	16 to 18 feet	Currants	3 to 4 feet
Pears, Dwarf	10 feet	Gooseberries	3 to 4 feet
Peaches	16 to 18 feet	Raspberries, Red	4 to 5 feet
Nectarines and Apricots	16 to 18 feet	Raspberries, Black	5 to 6 feet
Cherries, Sweet	16 to 20 feet	Strawberries, Rows	1 by 3½ feet
Cherries, Sour	12 to 15 feet	Strawberries in Beds	1½ by 1½ feet
Plums	16 to 20 feet	Asparagus in Beds	1 by 1½ feet

NUMBER OF TREES AND PLANTS PER ACRE AT VARIOUS DISTANCES.

1 foot x 1 foot	43,560	5 feet x 5 feet	1,742
2 feet x 1 foot	21,780	6 feet x 6 feet	1,210
2 feet x 2 feet	10,890	8 feet x 8 feet	680
3 feet x 1 foot	14,520	10 feet x 10 feet	435
3 feet x 2 feet	7,260	12 feet x 12 feet	302
3 feet x 3 feet	4,840	15 feet x 15 feet	193
4 feet x 1 foot	10,890	16 feet x 16 feet	170
4 feet x 2 feet	5,445	18 feet x 18 feet	134
4 feet x 3 feet	3,630	20 feet x 20 feet	108
4 feet x 4 feet	2,722	25 feet x 25 feet	69
5 feet x 2 feet	4,356	30 feet x 30 feet	48
5 feet x 3 feet	2,904	33 feet x 33 feet	40
5 feet x 4 feet	2,178		

The number of plants required for one acre, at any given distance apart, may be ascertained by dividing the number of square feet in an acre (43,560) by the number of square feet given to each plant, which is obtained by multiplying the distance between **rows** by the distance between the **plants.** Thus, Strawberries planted three feet by one foot, gives each plant three square feet or 14,520 plants to the acre.

April 5th. 1907.—Your shipment of trees reached us several days ago, and has just been handled. It was some time on the road, but was well worth waiting for. They were a fine lot of trees as good as we have had this season, and our sorters were unable to find one tree in the lot that they thought should not be accepted. We are much obliged to you for your careful attention, and hope that we can do some business another year.—Chase Brothers Company.

April 29th., 1907.—Enclosed find draft to pay bill April 15th., $5.25. Trees 12 days on road, but guess O. K.—nice trees.—H. L. Felter.

April 25th., 1907.—My order of trees which I have just received are in fine "very fine" condition.—Ira D. Fuller.

April 8th., 1905.—The Bartlett Pears and Pie Plant was all right and received in good shape. I hand you draft for my account. Thank you.—W. P. Griffith.

Nov. 12th., 1906.—Trees received all O. K. Finest lot of trees and in the best condition of anything I ever got from any company that I ever had dealings with and my experience has been quite extensive.—J. Divelbliss.

FRUIT DEPARTMENT.

APPLES

THE Apple stands at the head of the list in importance both for general culture and for commercial purposes. Its season, unlike that of other fruits extends nearly or quite through the year. By planting judicious selections of Summer, Autumn and Winter sorts, a constant succession can be obtained of this indispensable fruit for family use. Past experience has proven that no other farm crop will produce as the Apple orchard. As it takes from five to seven years for an apple orchard to come to bearing some persons hesitate to plant, regarding the time too long to wait, but when we look back a period of a few years we observe how quickly time has passed, and so it will be in the future as in the past, and one thing is certain, if we do not plant we will never obtain.

We would be glad to say further in regard to planting apples, transplant on good land, plant largely, plant in hope, plant with a purpose to give the trees care as they need it. Trees are as sensitive to neglect and suffer from lack of care as surely as anything else, and they will pay for good care abundantly. I would say to all who plant trees, study your soil, study your trees. Take one or more live

horticultural publications. You will get much valuable instruction from them. The time is rapidly passing when the man who farms the largest number of acres will reap the largest harvest. The man who farms the best, the man who gets most in sympathy with his land and his crops, the man who does the things that should be done when they should be done and the way they should be done is the man who will get the largest reward for his labors. Nature always pays as little as possible to the man who does his work poorly.

Some persons may say that there are so many orchards being planted that the demand will not equal the supply and thus hesitate to plant. This has been the cry for the past thirty or forty years, and it is the commercial fruit grower today that is making the money far exceeding that obtained by the ordinary farmer. This is a large country, and it is seldom that there is a full crop of fruit in all the states and territories the same year, and the evaporating of fruits has become such an immense business that it may be doubted if orcharding will ever in any season be less than highly remunerative.

If Apples are planted at the rate of fifty trees per acre, rows of Peach trees can be planted between the Apples, which, growing more quickly than the Apple trees, soon protect them from the wind, and thus are a great benefit to them. After eight or ten years of productiveness, as the space is needed for Apples, the Peach trees may be removed, leaving the orchard better for the protection, and at the same time having yielded the planter a large return for his trouble.

SUMMER APPLES.

American Summer Pearmain—Tree slow grower, but when grown to maturity a good bearer. Fruit medium size, oblong or round; color, greenish yellow, more or less covered with dull red; flesh is tender and juicy, mild, sub acid. Quality best. Use dessert; it is not recommended for market. Season August and September.

Carolina Red June—Tree moderate, upright grower, early and abundant bearer. Fruit small to medium, oblong; surface smooth; color dark red and white ground; flesh white, very tender, fine grained, juicy, acid. Quality good; use table and market. Season June and July.

Cooper's Early—Size medium, color pale yellow with faint blush on sunny side; flesh white, crisp, sprightly, mild acid, a good cooking variety; tree hardy, an early bearer and heavily productive.

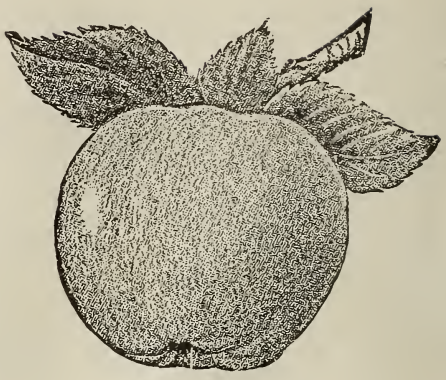
Duchesse of Oldenburgh (Syn. Oldenburgh)—A Russian apple and considered of great value farther north, here not often called for; tree moderate grower and hardy, fruit medium size; surface smooth, waxen yellow with stripes and splashes of red; flesh white, tender, and juicy, sour and good for cooking.

Early Harvest—The most popular summer apple on our list, tree healthy, vigorous grower and good bearer; fruit medium size, nearly round, somewhat flattened; surface smooth, clear waxy yellow, rarely blushed; flesh tender, juicy, acid to sub acid, flavor good; quality best, use table and kitchen. Season July.

High Top Sweet (Syn. Sweet June)—Tree strong, upright grower, very productive, fruit small to medium, round, greenish yellow; flesh white or greenish white; fine grained, tender, quality good; use table and kitchen. Season June and July.

Red Astrachan—Another Russian apple that has proved to be very popular with planters; tree vigorous, upright grower; hardy and productive; fruit medium to large; surface smooth, marbled and striped on greenish yellow, flavor acid, use kitchen and market.

Summer Queen—Tree vigorous, large spreading, productive; fruit medium, round, surface yellow covered with mixed red and scarlet; flesh firm, yellow; flavor, acid, spicy; quality very good; use kitchen. Season July and August.



YELLOW TRANSPARENT.

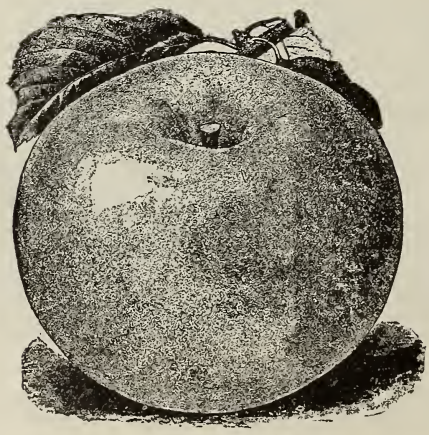
Yellow Transparent—A Russian variety, new and promising in the north, tree hardy and moderately vigorous, an early and good bearer; fruit medium to small, skin clear white at first, becoming pale yellow when fully mature, often with a clear blush cheek; flesh white, tender, juicy, sub-acid, quality good. Season early in August.

FALL APPLES.

Autumn Strawberry—Tree upright, thrifty grower; fruit medium, roundish, angular; surface smooth, waxen, yellow mixed and striped with scarlet; flesh yellow, tender, fine grained, very juicy; quality best, for dessert especially. Season August and September. Not so much called for as it should be .

Bailey's Sweet—Fruit large, round, mottled and striped deep red; flesh yellow and tender, with a mild, rich, sweet flavor. Quality best. September.

Fall Pippin—Tree strong grower, not an early bearer, moderately productive when old; fruit large, globular; surface smooth, rich yellow, sometimes blushed; flesh yellow, very fine grained; flavor acid; quality best, use dessert, kitchen, market and drying. Season August to October.



MAIDEN'S BLUSH APPLE.

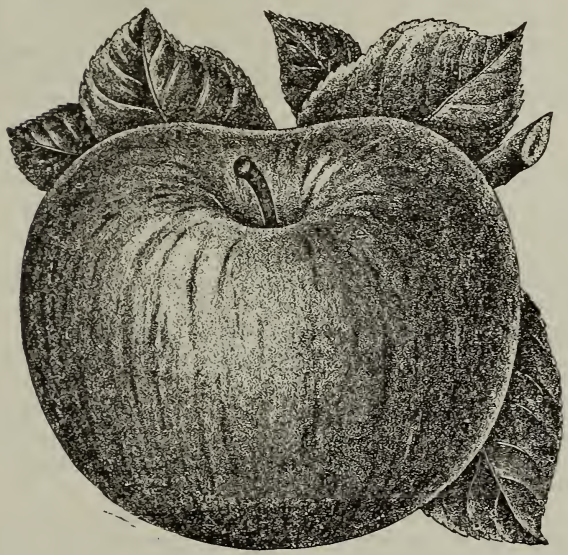
Fameuse (Syn. Snow)—Tree hardy, vigorous and productive; a fine apple of medium size, round, surface pale yellow nearly covered with red made up of stripes and splashes; flesh snowy white, tender, fine grained, juicy; flavor mild, sub acid; quality good, to very good; use dessert, kitchen, market.

Lowell—Tree strong vigorous grower and good bearer; fruit large to very large, round; surface smooth, waxen yellow, not blushed, becoming greasy when kept indoors; flesh yellow, fine grained, juicy; flavor sub-acid; quality good to very good; use table, cooking, drying, market. August, September.

Maiden's Blush—Rather large, oblate, smooth, regular, with a fine, evenly shaded red cheek or blush on a clear, pale yellow ground; flesh white, tender, sprightly, with a pleasant sub-acid flavor; bears large crops. August and September.

Rambo—Medium, yellowish, streaked with dull red and somewhat dotted; mild, tender and good; productive and vigorous. September to November.

WINTER APPLES.



ARKANSAS BLACK.

Arkansas Black—New, from Arkansas; size somewhat above Winesap; fruit roundish; color rich dark red; flesh yellow; quality good, an apple of some promise. We would recommend the planting of a tree or two by any who desire to experiment with new fruits.

Ben Davis—More criticised than perhaps any other sort, it has been more planted than any other sort, but for the last year seems to be less called for than it was a few years ago. It is, however, still one of the most largely planted sorts, and its many good qualities will assure its continued usefulness and popularity. Tree thrifty, upright grower of almost perfect shape. Fruit large, round, sometimes variable in form, surface smooth, often polished, bright yellow covered with red and splashed; flesh white, tender, juicy; flavor sub-acid, not rich; quality only good; use market and cooking. Season November to spring.

Baldwin—Tree strong, thrifty grower; fruit large, round, or somewhat flattened, sometimes irregular; surface smooth, yellow in shade, when exposed red; flesh yellow, juicy, rich; quality good; use table and cooking. Season October to December.

Clayton—Large, yellow, striped, flesh yellow; sub-acid; favorite cooking apple. Season January to May.

Gano—This apple seems to be increasing in popularity. It has a good record and will, we confidently expect, be one of the most largely planted. It very much resembles the Ben Davis in appearance, both in tree and fruit. It is claimed to be more productive, better flavor and more profitable than its parent. Season January to April.

Gilpin (Syn. Little Red Romanite)—Tree very strong grower with spreading open top. Fruit medium to small, round flattened at the ends; surface smooth, deep red; flesh greenish yellow, firm, juicy; flavor rich, little if any acid; quality good. Use cider and table; one of the longest keepers. Season February to May.

Grimes' Golden—This is one of the most popular apples in cultivation. Tree strong, thrifty grower, spreading branches. Fruit medium or above, cylindrical, regular, surface yellow; russeted. Flesh yellow, firm, very fine grained, juicy, flavor sub-acid rich, quality best; use dessert, cooking and market.

Hubbardston's Nonsuch—Tree vigorous grower, early bearer and productive; fruit large, fair, handsome, round; surface often uneven, yellow, covered with mixed red and broken stripes, presenting a rich brownish appearance; flavor acid, rich; quality very good; use cooking and table when fully ripe. Season October and November.

Huntsman's—Tree very upright, thrifty grower and good bearer. Fruit medium or above in size; color a rich yellow when fully ripe; shape round, considerably flattened at the ends. Flesh pale yellow, and somewhat coarse, juicy and rich, acid, very good. Season November to March. Use Table and market.

Ingram—A seedling of Rawles' Genet. Tree more upright, fruit medium size, roundish inclined to conical, smooth, yellow ground, striped bright red; flesh greenish yellow, delicate, tender, juicy, sub-acid. A late keeper.

Jonathan—Tree rather slender growth and spreading habit. Fruit medium or above in size, round or oblong, surface very smooth, waxy yellow, often wholly covered with brilliant red. Flesh whitish yellow, tender, very juicy; use dessert and cooking, also one of the most profitable market apples; quality best, a general favorite; everybody likes Jonathan. Season October and November.

Mammoth Blacktwig—Originated in Tennessee. Tree a fine upright spreading grower, bears large crops and holds its fruit well; the fruit is fully one-fourth larger than the Winesap, which it resembles very much in color, flavor and keeping qualities. November to April.

Mann—The Mann is one of the newer sorts, that makes considerable promise of becoming popular when better known. The tree is a strong and upright grower. Fruit medium to large, roundish, oblate; skin deep yellow, when fully ripe, often with a shade of brownish red. Flesh, yellowish, half tender, juicy, mild, pleasant, sub acid, good to very good, an early and annual bearer.

Milam—Tree moderate grower, annually productive and an early bearer. Fruit small to medium, conical, regular, surface smooth, yellow covered with marbled red. Flesh white, tender, juicy; flavor sub-acid and refreshing; quality good; use dessert. Season October to December.

Minkler—Fruit medium, roundish, oblate, slightly conical, pale greenish yellow, striped and splashed with two shades of red, flesh yellowish, compact, moderately juicy, mild, pleasant, sub-acid; tree irregular grower; January to April.

Missouri Pippin—Tree strong upright grower and great and early bearer, the branches frequently breaking down under the burden of fruit. Fruit medium or above in size, rich, bright red striped and splashed on yellow ground; shape lopsided, flattened at the ends; flesh yellow; flavor acid; quality good; use market, kitchen, cider. Season November till spring.

Northern Spy—Tree strong upright grower, does not bear young; a good bearer when old. Fruit large, roundish, sometimes angular; surface smooth, yellow, mixed and splashed with scarlet or crimson; flesh yellowish white, breaking, juicy; flavor acid, rich; quality best. Use table, kitchen and market. Season September to November. North and East is one of the best winter apples.

Rawles' Genet (Syn. Jenaton)—Tree good grower, not so large as some. Fruit medium, somewhat conic, regular; surface smooth, mixed and striped on yellow and green. Flesh yellowish, crisp, fine grained, juicy; flavor, sub-acid; quality good to very good; use dessert, kitchen, market and cider. Season November to spring. One of the best of our old favorites.

Red Winter Pearmain (Syn. Kirby Red)—An apple very highly esteemed by some. Tree fair upright grower and good bearer. Fruit medium to large, conic; surface deep red, almost purple on yellow; flesh breaking, juicy; flavor mild, sub-acid, almost sweet, rich; quality good. Use table and kitchen. Season November and December.

Rhode Island Greening—Tree strong grower, crooked, spreading, productive. Fruit large, varying in shape from round to flat, surface somewhat rough and russeted; color dull green, becoming yellow at maturity; flesh very yellow, juicy with rich acid flavor; quality very good. Use table. Season September to November.

Roman Stem—Tree moderate grower and productive. Fruit medium, globular; surface smooth, yellow, sometimes blushed; flesh yellowish white, fine grained and juicy; flavor mild, sub-acid, rich; quality very good. Use table. Season October to December.

Rome Beauty—Tree thrifty upright grower. Fruit large to very large, roundish oblate, sometimes conical; surface smooth, pale yellow, striped and mixed with red; flavor sub-acid, not rich; quality good; desirable market fruit on account of its productiveness and fine appearance. Season November to January.

Smith's Cider—Tree strong grower, hardy, productive and an early bearer. Fruit medium to large, round, sometimes lopsided; surface smooth, pale yellow, covered with mixed light red, splashed with carmine; flesh white, juicy; flavor acid to sub-acid, not rich; quality good for cooking, makes much cider, but most valuable for market.

Stark—Tree strong grower with spreading top, considered valuable as a long keeper and a good market apple. Fruit large, greenish yellow, shaded and striped with red; flesh yellowish, moderately juicy, mild, sub-acid; quality good to best. Season November to Spring.

Tallman Sweet—Tree hardy and strong grower; fruit medium, nearly round, somewhat flattened; surface smooth yellow; flavor sweet, rich; flesh yellow and firm; use baking and dessert. Season October to December.

Walbridge—Tree strong grower and productive, highly prized farther north for its extreme hardness; fruit medium size, color pale yellow shaded with red; flesh crisp, tender and juicy; quality good. Season December to spring.

Wealthy—Another tree highly valued for its extreme hardness at the far north; tree thrifty grower and good bearer; fruit medium, roundish; skin smooth, oily, mostly covered with dark red; flesh white, fine grained, juicy, sub-acid, good. Season November to January.

White Winter Pearmain—Tree moderate grower with spreading top; fruit medium, handsome when fair but sometimes scabs badly; surface smooth, yellow, sometimes bronzed; flesh yellow, fine grained, tender, juicy; flavor mild, sub-acid, very rich; quality best; use table, kitchen, market. Season November to January.

Willow Twig—Tree good grower, branching and twiggy, good bearer; fruit globular; surface smooth, dull, greenish yellow, marbled and striped dull red; flesh greenish yellow, juicy; flavor acid; quality only good; valuable for market and kitchen. Season November to Spring.

Winesap—An old favorite, one of the best; tree vigorous grower with spreading top; fruit medium, conical; surface smooth, bright or dark red on yellow ground; flavor rich, acid to sub-acid; quality nearly best; use table, market, kitchen, cider; very desirable on account of its productiveness and general good quality.

Wolf River—An apple peculiarly adapted to the West on account of its extreme hardiness; very large and handsome, flesh whitish, breaking, pleasant, sub-acid; a good bearer. November and December.

York Imperial—Generally known and popular with many of our most experienced orchardists; tree moderate grower and productive; fruit large, lopsided; surface smooth; color mixed, bright red on yellow ground; flesh yellowish, tender and juicy; flavor mild, sub-acid; quality very good; use, market, table, kitchen. Season November till spring.

The following comparatively new sorts of apple are believed to be especially desirable and are highly recommended for trial.

Bayard—Tree upright, vigorous grower; abundant and constant bearer; fruit large, round; skin dark red with white dots; flesh white, fine grained, solid, crisp, juicy, with a refreshing vinous flavor. Season October to May.

Stayman's Winesap—Originated on the grounds of Dr. Stayman, Leavenworth, Kansas; tree hardy, vigorous, spreading, irregular, tough, wiry, droops like a weeping willow with loads of fruit never breaking a limb; an early bearer and very productive; fruit medium size, round, approaching conic; skin smooth, greenish yellow, splashed and striped with red and purple, covered with a white bloom, dots small, gray, scattered; stem medium, rather slender; cavity wide, deep, much russeted, regular; calyx large, open or half closed; segments large, erect; basin rather narrow, abrupt, deep furrowed; core medium; flesh yellow, firm, tender, juicy, rich, mild, sub-acid, aromatic, quality best. Season January to May.

Dr. Stayman says of this variety: "It has never failed bearing a heavy crop. It is worth a whole race of winter apples."

Prof. Van Deman says of this variety: "I am sure this apple will eventually supercede the old Winesap. To produce this one variety is worth almost a lifetime."

Winter Banana—New, excellent. The name is most appropriate as it has a delightful banana perfume; fruit keeps well till spring; the color is a striking red blush on a deep yellow ground; it is large size and very showy in appearance, roundish, inclining to conical; stalk three-fourths of an inch long; cavity moderate, apex shallow; originated in Indiana. The claims for this apple are such that we recommend it for trial.

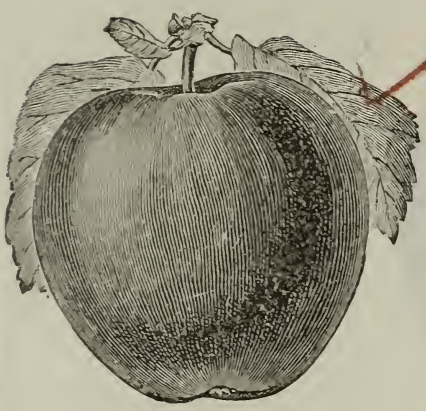
CRABS.

The introduction of improved varieties of this beautiful fruit has made the planting of a few trees very desirable for every family. They are universally desired for cooking, preserving, and are especially valuable for cider.

Besides being useful, they are also very ornamental when in bloom, and also when loaded with their highly colored fruits.

Here are some of the most valuable varieties:

Hyslop—Tree a moderate grower, making a beautifully shaped, thrifty tree; bears young. Fruit large, nearly round, flattened at the ends; skin smooth; color dark rich red on yellow ground; flavor very good. One of the most beautiful fruits grown.



JOHN'S CRAB

John's Crab—This variety we consider the best we know. It is so far as we know confined to one tree about one mile west of Ottawa. This has been an especially productive and valuable tree for many years. In the last year or two we have sent out a few young trees of this kind, but so far as we know none of them are yet in bearing. We are now prepared to supply a few trees of this kind as they may be needed by our customers. Fruit large to very large; in shape very much like the Jonathan apple; color a rich dark red; flavor excellent. A good fruit to eat out of the hand. Season September to November.

Martha—A seedling of Duchess of Oldenburg, which originated in Minnesota. Earlier than the Transcendent; very ornamental as well as a fine fruit; bears in profusion every year. September and October.

Montreal Beauty—Tree good grower, hardy and productive. Fruit medium size, bright yellow shaded with red; flesh rich, firm, acid, very good. Season September.

Quaker Beauty—Tree one of the strongest growers; good bearer; quality good. Season October to January.

Transcendent—Tree strong grower, making a large beautiful tree and an early and abundant bearer; perhaps the most valuable of the varieties of this class of fruit. Fruit large, round; skin smooth; color rich yellow shaded with red. Valuable for preserving and cooking; said to be one of the best for cider. Season August and September.

Whitney' No. 20—Tree thrifty, upright grower. Fruit large; skin smooth, striped and splashed with carmine; flesh firm, juicy and pleasant flavor. Season August. A productive bearer and considered one of the best.

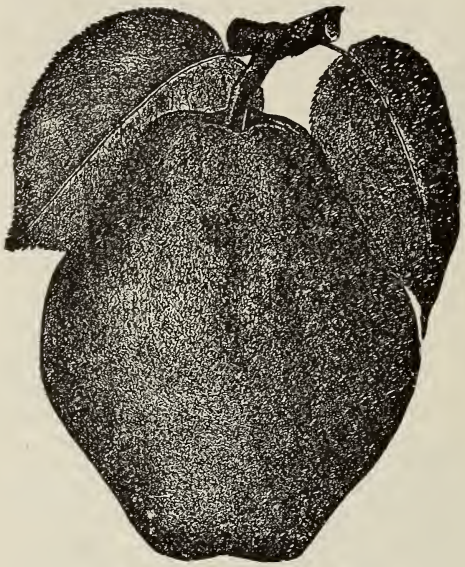
PEARS

THE cultivation of this noble fruit is rapidly extending as its value is appreciated. The range of varieties is such that, like apples, they can be had in good eating condition from August until early Spring.

The melting, juicy texture, the refined flavor, and the delicate aroma of the Pear, give it rank above all other fruits except the grape.

But the Pear, like most other things highly desirable and valuable, cannot be had without attention, labor and skill. The relative prices of the apple and pear being about as one to five, show at the same time the superior value of the latter, and the greater skill required to bring it to perfection.

There seems to be but one drawback to the profitable cultivation of the Pear, either as standard or dwarf and that is the "Blight" which brings ruin to so many trees, and for which there is no known remedy. But Pear trees do not all blight, as we can well testify when we visit any fruit market in their season. While the good prices and productive habits of the trees, their com-



KEIFFER PEAR

parative freedom from other diseases and from insect enemies make the Pear a desirable fruit to plant, in a moderate way, for market; and the high quality and many ways in which it can be used to pleasure and profit, make the planting of a liberal supply for home use scarcely less than a necessity. Standard trees are budded or grafted on seedling pear roots; dwarf trees are budded on Angers Quince roots.

Dwarf pears should be set so deep that the joint where the pear is united to the quince will be at least two inches below the top of the ground. By this means roots will be thrown out from the pear and larger trees are secured.

STANDARD PEARS

Should be planted twenty to twenty-five feet apart. They will grow on almost any soil, provided the sub-soil is not too wet. Whenever this is the case the ground should be thoroughly under-drained. In very poor soil, a moderate top-dressing of manure, in the fall, will be of advantage. When a tree is assailed by blight cut off the part affected several inches below all appearance of the disease.

DWARF PEARS

Should be planted about eight or ten feet apart. At the time of planting and every spring thereafter they should be thoroughly pruned, shortening in the current year's growth about one-half, aiming to form a round and well proportioned head. The ground should be well cultivated, and enriched by top-dressing of manure in the autumn, and well mulched in the spring. Pears grown on standards or dwarfs should never be allowed to ripen on the tree.

Gathering Pears. In order to retain the juice and best flavor, summer pears should be gathered at least ten days before they are ripe, and autumn pears at least two weeks before; and winter varieties before any danger of injury from frost.

Thinning the fruit. When the trees are heavily laden the fruit should be thinned when about one-third grown, else the fruit will be poor and the trees injured.

The letters, "D." and "S.", used in the descriptions of varieties, indicate favorable growth either as "Dwarfs" or "Standards," or both. Those designated as "moderate growers" are usually smaller trees.

Bartlett—S. and D. An old favorite, more generally known and highly esteemed than any other sort. Tree thrifty, upright grower; fruit large, irregular pyramidal; skin thin and smooth, clear yellow, sometimes with a faint blush on the sunny side; flesh white, fine grained, buttery, juicy, sweet; quality best. August and September.

Beurre de Anjou—S. and D. Tree good grower and bearer; fruit large, obtusely pyriform, sometimes nearly round; skin greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, melting, juicy. September to November.

Buffum—D. Tree an unusually strong grower; fruit small to medium; skin fair, deep yellow and bright red, sprinkled with russet dots; flesh white, buttery, juicy, sweet, excellent flavor. August and September.

Clapp's Favorite—S. and D. A splendid pear, resembling Bartlett, ripening a few days earlier; a cross between that variety and Flemish Beauty. Fruit large; color yellowish green, marbled with red in the sun; vinous, melting, rich. One of the best summer pears. August.

Duchesse d'Angouleme—D. Sometimes planted as a Standard, but an especial favorite as a dwarf. Tree vigorous and productive; fruit of the largest size, with an uneven, somewhat knobby surface; skin dull greenish yellow, a good deal streaked and spotted with russet; flesh white, buttery and very juicy, with a rich, excellent flavor. September and October.

Flemish Beauty—S. Tree generally preferred as a Standard. Fruit large; skin a little rough, pale yellow mostly covered with patches of russet, becoming reddish brown at maturity on the sunny side; flesh yellowish white, juicy and rich. September. Should be picked before it is fully ripe. One of the best.

Garber's Hybrid—S. Is kin to and very much like Kieffer, but is larger, of better quality, and ripens two or three weeks earlier. Is as yellow as an orange. Immensely productive, bears at three years from the nursery. A valuable market fruit.

Howell—S. and D. Tree strong, free grower; fruit above medium size; skin light waxen yellow, often with a finely shaded cheek; flesh white, rather coarse, with a rich aromatic flavor. August and September.

Keiffer—S. Tree one of the strongest growers, with rich, glossy foliage; is not recommended as a dwarf, but is highly recommended as less subject to blight than most others, though not in all cases free from blight. The Keiffer, by its good qualities of tree and fruit, has pushed its way to the front, so that today it is regarded as one of the most valuable kinds. Fruit large, golden-yellow, blushed with red in the sun; flesh slightly coarse, juicy, melting. Tree a great bearer; fruit especially valuable for cooking and market.

Koonce—S. Medium to large, very handsome, surface yellow, one side covered with bright carmine, dotted with brown; very early, quality good, spicy, juicy, sweet.

Lincoln Coreless—S. An interesting and remarkable fruit from the fact that it possesses neither seed nor core; fruit large, high colored; flesh yellow, rich, aromatic and a late keeper; tree a good grower, hardy and free from disease.

Lawrence—S. Tree of moderate growth; early and good bearer; fruit medium size, obtuse pyriform; skin fine, light yellow, very thickly covered with minute brown dots; flesh whitish, somewhat buttery, with rich, aromatic flavor. One of the best early winter pears. October to December.

Lawson (Syn. Comet)—D. and S. Fruit large for so early a pear, the larger specimens measuring more than 9 inches in circumference; sufficiently firm to insure its being a good shipper; of brilliant crimson color on yellow ground; flesh crisp, juicy and pleasant, yet like many of our most popular market fruits not of highest quality, but what it lacks in flavor is offset by its charming exterior, being one of the most beautiful things imaginable in the way of a pear. July.

Louise Bonne de Jersey—D. Tree especially desirable as a dwarf; vigorous grower, very productive; fruit medium size, pyriform, somewhat one-sided; skin smooth, glossy, pale green in shade but brownish red in the sun; flesh greenish white, very juicy with a rich, excellent flavor. September.

Seckel—S. and D. Tree a moderate grower, said to be less subject to blight than most varieties; fruit small to medium; regularly formed; skin dull yellowish brown, with lively red cheek; flesh whitish, buttery, very juicy and melting with a peculiarly rich, spicy flavor; a regular and abundant bearer. August to October.

Sheldon—S. Tree moderate grower and good bearer; fruit medium size or above; roundish oval; skin yellow or greenish russet with a richly shaded cheek; flesh melting, juicy, with a brisk, vinous flavor. September and October.

Vicar—D. Tree very strong grower; fruit large and long pyriform, somewhat one-sided; skin fair and smooth, pale yellow, sometimes with brownish cheek; flesh greenish white, generally juicy, sometimes buttery, with a good, sprightly flavor. October to December.

Wilder Early—S. Size medium; greenish yellow with a brownish red cheek and numerous dots; flesh white, fine grained, melting, excellent; about three weeks earlier than the Bartlett.

PLUMS

THE Plum tree, like the Pear and other finer fruits, attains its greatest perfection on heavy soil, being entirely free from disease. The curculio, a small dark brown beetle, often stings the fruit, causing it to drop off; but the following directions faithfully observed, will secure a crop of this splendid fruit everywhere.

As soon as the blossoms are fallen spread two sheets under the tree and give the tree a sudden jar by striking a smart blow with a hammer upon the stub of a limb, sawed from the tree for this purpose. The insects will drop on the sheets and can be killed. Collect all the fallen fruit and burn or feed to swine. Repeat the operation every day for two or three weeks. It should be done early in the morning.

The cost of protecting large orchards from the attacks of this enemy will not exceed ten cents per tree for the entire season.

EUROPEAN VARIETIES.

Bradshaw—Fruit very large; dark violet red; flesh yellowish green; juicy and pleasant; productive; vigorous. Middle of August.

Coe's Golden Drop—Large and handsome; light yellow; firm, rich and sweet; one of the best late plums; moderate. September.

Damson—Fruit small, oval; skin purple; covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stem; moderate. September.

Fellenburg (Syn. Italian Prune)—A fine late plum, oval, purple; flesh juicy and delicious; parts from the stone; fine for drying; tree very productive; free. September.

German Prune—A large, long, oval variety; much esteemed for drying; color dark purple; of very agreeable flavor; vigorous. September.

Lombard—Perhaps the best of the European varieties now in cultivation; tree vigorous, hardy and productive; fruit of medium size, roundish, oval, slightly flattened at the ends; skin delicate violet red, paler in shade; flesh deep yellow, juicy and pleasant. Season August.

Moore's Arctic—Originated in Maine, and celebrated for its remarkable hardiness, great bearing qualities and freedom from curculio; fruit grows in large clusters, large, dark purple; flavor very fine, both for preserving and dessert. A long keeper.

Shipper's Pride—This plum originated in northwestern New York, near the shore of Lake Ontario and has never been known to freeze back a particle in the severest winters. Size large, color dark purple, flesh firm and excellent quality. First of September.

Shropshire Damson—A plum of fine quality, as free from the attacks of the curculio as the common Damson, and of the same color. The flesh is amber colored, juicy and sprightly. In market it has commanded nearly double the price of the Common Damson, and is enormously productive. Free. Last of September.

NATIVE VARIETIES.

DeSoto—Medium, bright red, sweet, rich, of fine quality. Extremely hardy and productive.

Miner (Syn. Townsend)—Medium size, oblong, skin dark, purplish red; flesh soft, juicy, vinous and adheres to the stone; excellent for canning and cooking, and esteemed for market; productive.

Mariana—Fruit large, round, has a singularly rich red color and most magnificent appearance; is not easily blown off by winds; skin rather thick, stone small, quality excellent; good for shipping and market. July. Free. A good grower.

Pottawatomie—Perfectly hardy and an immense early annual bearer; fruit is yellow, overspread with a bright pink and prominent white dots; flesh yellow, lucious, good, ripens in July.

Weaver—Fruit large, purple with blue bloom, of good quality; a constant and regular bearer; tree hardy and thrifty grower.

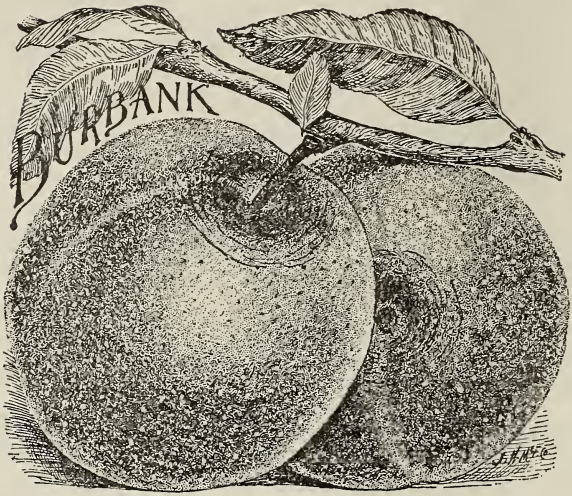
Wild Goose—The most popular of plums with some fruit growers; tree a vigorous upright grower; fruit medium to large, rich golden yellow, richly shaded with red; flesh yellow, juicy; flavor rich and good.

Wolf—Fruit nearly as large as Lombard and a perfect free stone; quality superb for cooking and for serving with sugar; tree a good grower, hardy and is becoming very popular wherever known, promising to lead all other plums. August.

JAPAN VARIETIES.

A unique class of plums, of great beauty and productiveness. The fruit is exquisitely perfumed, with a charmingly attractive bloom. Trees are exceedingly ornamental, with smooth branches and rich, light green foliage, and quite distinct from other varieties, early and prolific bearers. The flesh is so firm and meaty that they can be safely shipped long distances, and kept for a long time in excellent condition.

Abundance, or Botan—This remarkable plum is being catalogued by some under the name of Abundance on account of its wonderful bearing qualities. It is one of the imported Japan varieties, the correct name being Botan. It is so remarkably strong and handsome in growth and foliage as to make it an ornament to any yard. It excells in early and profuse bearing. The fruit is large and handsome, showy and practically curculio proof; fruit is beautiful lemon yellow ground, nearly overspread with bright cherry and with a heavy bloom, large to very large, oblong, tapering to the point; flesh orange yellow, melting, rich and highly perfumed. July.



Burbank—The best of all the Japan sorts of plums; nearly globular, clear cherry red with a thin lilac bloom. The flesh is a deep yellow color, very sweet, with a peculiar and very agreeable flavor; tree vigorous, with strong upright shoots, large broad leaves; commences to bear usually at two years. It blooms late and consequently is more likely to escape the late spring frost.

Kelsey—Fruit very large, from 7 to 9 inches in circumference; heart shaped, long pointed, usually somewhat lopsided, with deep furrow like suture; skin greenish yellow, sometimes overspread with bright red, with a lovely blue bloom, very showy; flesh a light yellow, firm, meaty, and of pleasant flavor; quality excellent; free, bears heavily, coming in young.

Prunus Simoni (Syn. Apricot Plum)—This remarkable plum came from Northern China; fruit large, cinnamon red color; the flesh is firm, rich, sweet, aromatic and delicious pineapple mingled with banana flavor; tree an upright grower, long, hanging leaves, distinct. July.

Satsuma Blood—A fine large plum of the Oriental class, large as Kelsey, more globular in shape and from five to six weeks earlier; the flesh is solid, of a purplish crimson color from pit to skin, juicy and of fine quality; pit exceedingly small—very little larger than a cherry stone; tree a strong, vigorous grower with a brownish red bark and lanceolate foliage.

Willard—Earliest of all Japan plums and hence very valuable for market; a strong, vigorous, hardy tree; very productive; fruit medium size, bright claret red with many minute dots; firm white flesh; free stone.

WICKSON

Wickson—A remarkably handsome and very large deep maroon red plum of the Kelsey type; long cordate or oblong-pointed; flesh firm, deep amber-yellow, clinging to the small pit. There is apt to be a hollow space about the pit as in Kelsey; of first quality; an excellent keeper. Cross of Burbank with Kelsey, Burbank furnishing the seed.

CHERRIES

CHERRY culture has been a success when proper attention has been given to the selection of varieties and their culture. The hardy, thrifty varieties of the Morello type may be freely planted with confidence of profitable results. The cherry tree should be planted in a naturally dry soil or the soil should be well drained so water may not remain near the roots for any considerable time. Cherries are now generally worked on Mahaleb, a stock that does not throw up sprouts from the roots. The most successful varieties in cultivation are:

Baldwin—Tree an upright, vigorous grower, forming round head; leaves large and broad; bloom pure white changing to pink; fruit large, almost round, very dark transparent wine color; flavor slightly acid, yet the sweetest and richest of the Morello type; stems rather large, of medium length and generally in pairs. Unexcelled in earliness, vigor, hardiness, quality and productiveness. Out of eight hundred trees it readily attracted attention as being the most thrifty and beautiful. When the original tree was eight years old it had fruited five years and was then one-third larger than any early Richmond of the same age.

Black Tartarian—Very large, bright purplish black; half tender, juicy, very rich, excellent flavor, productive. Free. Ripens first to middle of July.

Dyehouse—This variety partakes both of the Morello and Duke, wood and fruit; a very early and sure bearer; ripens a week before Early Richmond; of better quality and quite as productive. Free. May and June.

Early Richmond—Everywhere the most popular; tree strong, thrifty grower, making a large symmetrical head; fruit medium size, dark red, melting, juicy, sprightly acid flavor, and especially valuable for cooking purposes; tree an early and abundant bearer. Season last of May and first of June.

English Morello—Tree moderate grower; hardy, great and early bearer. The most valuable of the late varieties; fruit large, round, skin dark

EARLY RICHMOND

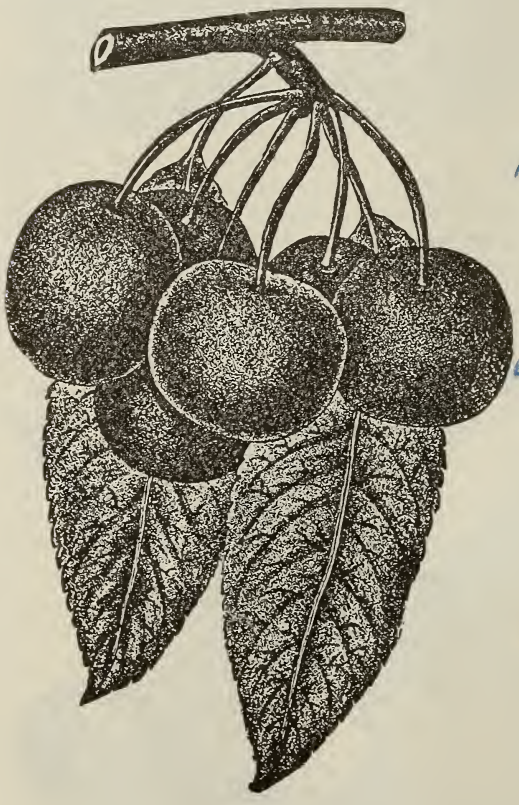
red, becoming nearly black when fully ripe; flesh dark red, tender, juicy, and of a pleasant sub-acid flavor when fully ripe. Season July.

Gov. Wood—One of the best of all the varieties of sweet cherries. The tree makes a fairly healthy growth. The same is true of Black Tartarian, Yellow Spanish and many others of the same class.

Lieb—Tree a fine upright grower, a variety of recent introduction of the Morello class; said to be an unusually promising variety ripening one week earlier than the Early Richmond; flesh firm and juicy with pleasant flavor.

May Duke—One of the best of cherries, and one of the most popular among experienced fruit growers in Kansas; fruit roundish, obtuse, heart-shaped, growing in clusters, and when fully ripe of a rich dark red; flesh reddish, tender and melting, very juicy, and when fully ripe of a rich excellent flavor. Season May and first of June.

Montmorency—This is a cherry of Early Richmond class, some larger and about ten days later; a strong upright growing tree and good bearer, and is by experienced horticulturists considered one of the most valuable varieties.



MONTMORENCY

Olivet—Fruit large, globular, a shiny deep red sort; ripens early in June, and retains its excellence longer than most others; spoken of highly as a promising variety of recent introduction.

Ostheimer—A perfectly hardy, very late blooming cherry from Germany. Immensely productive; fruit heart shaped, nearly black when ripe; juicy and rich. Has been tried in the West and succeeds. A valuable late cherry.

Wragg—Originated in Iowa. Medium to large in size, long stem, dark purple when fully ripe. A variety well adapted to the high latitude and prairie regions of the northwest. July.

April 3rd., 1907.—Trees received in "good order" and am well pleased with same. Herewith enclose you draft in payment of same. Please acknowledge receipt.—D. Kinsey.

April 21st., 1906.—Would say your trees were very fine. Enclosed please find $88.76, balance due.—W. D. Evans.

PEACHES

PEACH trees should be planted 16 or 18 feet apart. To secure healthy, vigorous and fruitful trees and fine fruit, the following points should be well attended to: (1) Keep the ground clean and mellow. (2) Keep the heads low—the trunk should not exceed 3 feet in height. (3) Give them an occasional dressing of wood ashes; soap suds also are good. (4) Prune every spring, shortening the shoots of the previous year's growth. This keeps the head round, full and well furnished with bearing wood. Cut weak shoots back about one-half, and strong ones about one-third, but see that there is left sufficient supply of fruit buds. Sickly and superfluous shoots should be cut out clean. The fruit is born on wood of last season's growth, hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Young trees should be well mulched every spring.

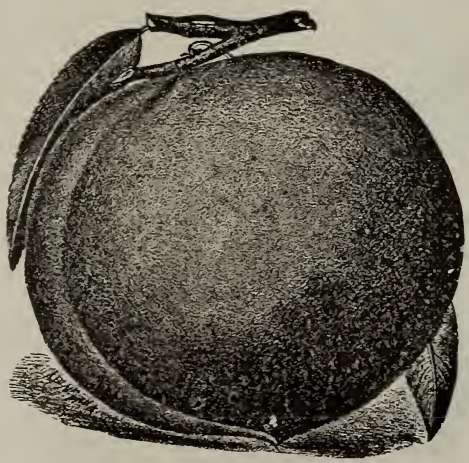
Arkansas Traveler—Said to ripen earlier than Amsden, of which it is a seedling; Fully equal to it in every respect.

Alexander Early—Large, well-grown specimens measuring 8 inches in circumference; handsome and regular in form, with deep maroon shade, covered with the richest tint of crimson; rich and good in quality, with a vinous flavor; adheres to stone; should remain on tree until fully ripe. Late June.

Amsden—Fruit medium size; color red, beautifully shaded and mottled with a very dark red, nearly covering the greenish white ground; flesh white, with a delicious flavor when ripened on the tree. June 15 to 30.

Blood Cling—A variety of the old Indian Peach. Fruit very large, form nearly round, skin dark purplish red, flesh very red; juicy and good. September and October.

Bokara No. 3—Raised from seed received from Bokara, Asia. The hardiest peach known; has been in bearing for several years in central Iowa, and produced fruit after 28 degrees below zero. Fruit measured over 7 inches in circumference. Yellow, with red cheek; skin tough, flesh of good quality a perfect freestone. Prof. Budd says: "They are 30 per cent hardier than the old strain of peaches.



CHAMPION

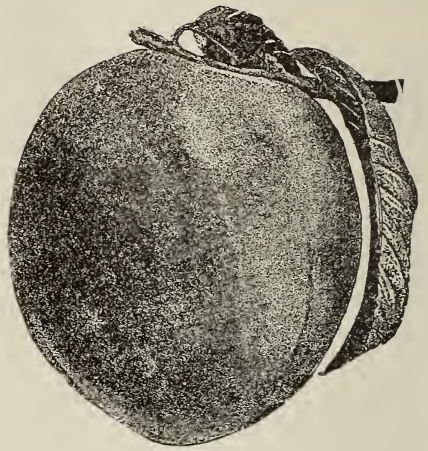
Carman—Large, resembles Elberta in shape; color cream-white or pale yellow with deep blush; skin very tough, flesh tender, fine flavor and quite juicy; ripens with Early Rivers; one of the hardiest in bud, in shipping qualities and freedom from rot unsurpassed. Promises to stand at the head for a general long distance profitable market variety, in quality ranking superior to anything ripening at the same time. August.

Champion—Fruit large, beautiful in appearance; flavor delicious, sweet, rich and juicy; skin creamy white, with red

cheek; freestone. The peculiarity of this great acquisition is its hardiness. It stood a temperature of 18 degrees below zero in the winter of 1887-8, and produced an abundant crop the following season; and again in 1890 produced a full crop, when the peach crop was a universal failure. August 15.

Crawford's Early—This beautiful yellow peach is highly esteemed for market purposes. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent; productive, free. July 15th.

Crawford's Late—Fruit of the largest size; skin yellow, or greenish yellow, with dull red cheek; flesh yellow; productive; one of the best; free. Late August and September.

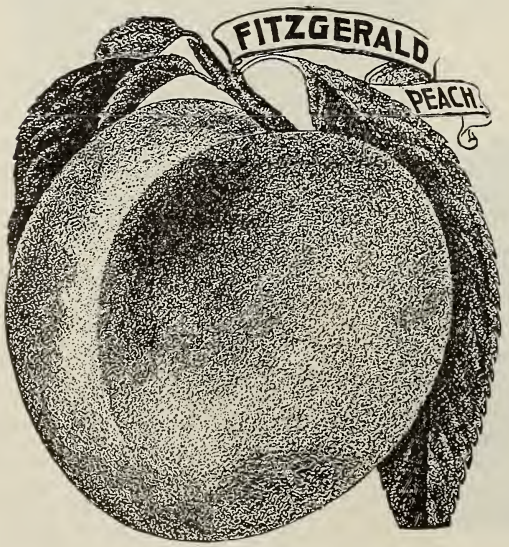


ELBERTA

Crosby—Medium size, roundish, with distinct seam on blossom end; skin light golden yellow and very downy; flesh bright yellow and rather firm. Ripens between Early and Late Crawford. Tree of rather dwarfish habit. Has won special favor on account of great hardiness. A recent introduction, that has attracted very wide attention on account of its disposition to produce good crops in "off years," when other varieties usually fail.

Early Rivers—Large, light straw color, with delicate pink cheek; flesh juicy and melting, with very rich flavor. First of July.

Elberta—Very large and well colored; all things considered, the finest yellow freestone in cultivation; no one can go amiss by planting it. Fruit perfectly free from rot; one of the most successful shipping varieties. August 20.



Family Favorite—Free; seedling of Chinese Cling, of better color; clear, waxen complexion, with blush; large, firm, valuable for shipping, canning or drying; prolific. Late July.

Fitzgerald—Originated on the north shore of Lake Ontario and in that cold region the original tree bore five successive crops. Tree will bear the second year from planting. The fruit is large, skin bright yellow, suffused with red, flesh deep yellow and of the best quality; seed very small. Freestone. July 20th.

Foster—Large, deep orange red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor; earlier than Early Crawford; very handsome; free.

Greensboro—Origin, North Carolina. Ripens with Alexander, but much larger. Round; flesh white, very juicy, of good quality; bright red over yellow, highly colored in the sun. A promising market variety.

Globe—An improvement on Crawford's Late; fruit large, globular, of a rich golden yellow with a red blush, flesh yellow, juicy. August.

Hale's Early—Fruit medium size; skin clear, smooth, white, delicately marbled with bright and dark red on the sunny side; flesh very melting, juicy and highly flavored. July 10th to 20th.

Heath Cling—Large, oblong, creamy white, slightly tinged with red in the sun; very tender, juicy, melting; very rich and luscious. September 15th.

Large Early York—Large, white, with red cheek, fine grained, very juicy, rich and delicious; vigorous and productive; one of the best; free. First of Aug.

Lemon Cling—[Pineapple Cling.] Large, oblong, having a swollen point, similar to a lemon; skin yellow with red cheek; flesh yellow, firm, juicy and sweet; tree a fine grower. August.

Lemon Free—Almost lemon shape, pointed at the apex, color a pale yellow when ripe; it is of large size, the finest specimens measuring over twelve inches in circumference, of excellent quality, ripens after the Late Crawford, is immensely productive.

Mountain Rose—Large, red; flesh white, rich, juicy, excellent; one of the best early peaches, ripening with Hale's Early, and much larger and finer than that variety; should be in every collection. July.

Old Mixon Cling—Large, pale yellow, with red cheek; juicy, rich and highly flavored; one of the best clingstone peaches. August 20th.

Old Mixon Free—Large, pale yellow, with deep red cheek; rich and good, one of the best. August.

Salway—Fruit large, roundish, deep yellow, with a deep marbled brownish red cheek; flesh yellow, firm, juicy, rich and sugary; a new English variety; a late showy market sort; free. Last of September.

Smock Free—Fruit large, oval, skin orange yellow, mottled with red, a good market sort. September 15th.

Sneed—The most remarkable early peach yet introduced; it ripens a week to ten days earlier than Alexander, and belongs to an entirely different type from Alexander and Hale's Early; it is very distinct in tree and fruit, belonging to the Chinese Cling type; size medium, color white, with flush on cheek.

Stump the World—Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good. Last of September.

Triumph—Earliest yellow flesh peach, with good eating and shipping qualities. Ripens with Alexander, blooms late; sure and abundant bearer; strong, vigorous grower. Fruit good size, yellow, with red and crimson cheek.

Wager—Very large, more or less colored on sunny side; juicy and of fine flavor; free. First to middle of August.

Wonderful—Originated in New Jersey, large to very large, uniform in shape and size, color rich golden yellow, overspread with carmine and crimson; flesh yellow, highly flavored and firm, bright red at pit, which is small and parts freely from the flesh. Ripe in October and keeps well.

APRICOTS

APRICOT

A DELICIOUS fruit of the plum species, valuable for its earliness. It is liable to be attacked by curculio, and requires the same treatment as the plum; it bears immense crops; ripens in July and August.

Early Golden—Small, pale orange; juicy and sweet; hardy as the Russian apricot. and productive. Vigorous. First of July.

Harris—A new variety, recommended for its good bearing qualities and extreme hardiness. It was brought into notice by orchardists at Geneva, N. Y., who prize it highly as a market variety. It is equal in size and quality to the best cultivated sorts and should take the place of the Russian Apricot.

Moorpark—One of the largest; orange, with a red cheek; firm, juicy, with a rich flavor; very productive. Vigorous. July.

Peach—Very large; orange, with a dark cheek; juicy and highly flavored; similar to Moorpark.

IMPROVED RUSSIAN VARIETIES.

Alexander—An immense bearer; fruit of large size, oblong, yellow flecked with red, flavor sweet and delicious; tree hardy; one of the best. July 1st.

Alexis—Large to very large; yellow with red cheek; slightly acid, but rich and lucious; tree hardy and abundant bearer. July 15th.

Gibb—Medium size; yellow, sub acid, rich and juicy; the best early sort, ripening with the strawberry.

J. L. Budd—Of large size; white, with red cheek; flavor sweet, juicy, extra fine; a hardy, strong grower and profuse bearer; the best late variety. August 1.

QUINCES

THE Quince is, of late, attracting a great deal of attention as a market fruit. The tree is hardy and compact in growth, requiring but little space, productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to four of other fruit, it imparts to them a most delicious flavor.

It flourishes in any good garden soil, which should be kept mellow and well enriched. Prune all the dead and surplus branches, and thin out the fruit if bearing too freely.

Apple or Orange—Large, roundish; bright golden yellow; cooks tender and is of very excellent flavor. Valuable for preserves or flavoring; very productive; the most popular and extensively cultivated variety. October.

Champion—A new variety, originated in Connecticut, where it is exciting marked attention. The tree is described as a strong grower, a prolific and

constant bearer; fruit averaging larger than the Orange, more oval in shape, quality equally fine, and a longer keeper.

Missouri Mammoth—The largest Quince in cultivation. Brought into notice in the vicinity of Kansas City, Mo., where it is fruited extensively, and is attracting great attention on account of its being large in size, perfect in shape, very rich and aromatic; tree vigorous, productive, an early bearer and free from blight.

NECTARINES

ALMOST delicious, smooth skinned fruit, which thrives wherever peaches will grow, but it is liable to be stung by the curculio, and requires the same treatment as plums.

Boston—Large, deep yellow, with a bright blush and mottlings of red, sweet and peculiar pleasant flavor; freestone; the largest and most beautiful variety known; hardy and productive. Vigorous. August.

MULBERRIES

DOWNING MULBERRY

Downing's Everbearing—Color blue black; flesh juicy, rich, sugary, with a sprightly, vinous flavor; tree ornamental as well as fruitful.

Hicks' Everbearing — Wonderfully prolific. Said to be superior to Downing.

New American—Fruit of the largest size, black, delicious in flavor; an attractive lawn tree, with very large leaves; of rapid growth; hardy.

Russian—This makes a good shade and ornamental tree; growing full and symmetrical; holding its leaves late in the autumn. It is a very rapid grower, bears fruit at two or three years of age, and every year. Color of the fruit varies some, but is generally black; very valuable.

CHESTNUT, AMERICAN SWEET.

AMONG our large collection of ornamental native forest trees the Chestnut is unrivalled for beauty. When grown in the open ground it assumes an elegant symmetrical form. The foliage is rich, glossy and healthy, and the whole tree is covered in early summer with long, pendent, tassel-like blossoms. It is especially desirable for its nuts, which it bears profusely a few years after transplanting. The Chestnut thrives well in any soil except a wet one. When nursery grown, bears transplanting well, and once established grows rapidly, and soon comes into bearing.

GRAPES

TOO much can not be said in praise of the Grape. It is one of the best and most popular fruits delicious for eating, especially desirable for cooking and preserving, and everywhere in large demand.

The vine comes quickly into bearing, yielding fruit usually the second year after planting, requires but little space, and when properly trained, is an ornament to the yard, garden or vineyard.

Almost everyone can find room for from six to a dozen or more Grapevines. They can be trained up the side of any building or over a garden fence, but the best and the cheapest way to grow them, either in small or large quantities, is on a wire trellis.

Work the ground deep for grape vines, and plant a little deeper than they were in the nursery. Make the rows 8 feet apart and plant the vines 6 to 8 feet apart in the rows. Some of the tender varieties would be benefited by laying the vines flat on the ground during winter, with a light covering of earth or litter.

Agawam—Red, large, round, early, and of great vigor of growth; rich, high, peculiar aromatic flavor. Considered by Mr. Rodgers as the best of his strictly red hybrids.

May 16th., 1905.—Please find enclosed check for $17.60, in payment for Apple seedlings which arrived O. K. and were entirely satisfactory in every way.—W. W. Clark.

April 7th., 1906.—Enclosed find remittance of $30.45 in settlement of account less 2 per cent as per yours of the 19th. Stock came to hand yesterday in good condition.—George W. Strand.

BRIGHTON

Brighton—A cross between the Concord and Dianna Hamburg; bunches large, berries of medium size, flesh sweet tender, and of the highest quality; ripens early; purple.

Campbell's Early—A seedling of Moore's Early, crossed with pollen of a choice seedling that resulted from a cross of Muscat Hamburg on Belvidere. It is regarded by Mr. Campbell as the finest Grape in all respects that he has produced in forty years of experimenting. Cluster large, shouldered, moderately compact; stem large, long, strong; berry large, nearly round, slightly elongated; black, with profuse, light blue bloom; skin thin, with slight pulpiness; flesh translucent, very tender and very juicy; flavor sweet; aroma delicate, not foxy; quality best for both market and dessert. Season early.

Catawba—Well known as the great wine Grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; two weeks later than Isabella. Where not subject to rot holds its own as one of the best varieties.

Concord—A most popular variety, universally healthy, vigorous and productive; flesh somewhat buttery, moderately juicy and sweet; bunch large, nearly black, with bloom; early. Much is said about some grape to take the place of Concord, its poor quality, etc., but the fact is generally recognized that the man who plants and cares for Concord vines will get bountiful crops of grapes and if they are allowed to remain on the vines until fully mature the quality is excellent. No other grape can be planted with the confidence that is felt in the Concord.

Delaware—Holds its own as one of the finest Grapes. Bunches small, compact, shouldered; berries rather small, round; skin thin, light red; flesh very juicy without any hard pulp, with an exceedingly sweet, spicy and delicious flavor; vines moderately vigorous, very hardy and productive; ripens before Concord.

Dracut Amber—Vine strong, hardy and productive; bunch medium in size; berries large, round; skin thick, pale red; valuable for market and cooking.

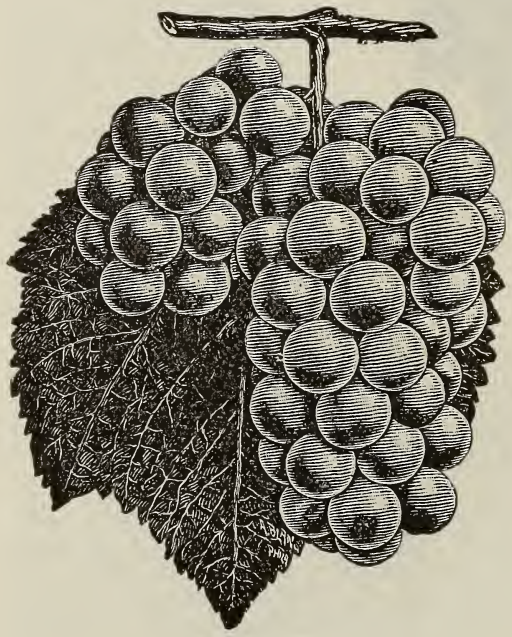
Early Ohio—Briefly, its points of merit are extreme earliness, hardiness and productiveness; the berry is black, smaller than the Concord, firm in texture; the vine is thrifty, a strong, rapid grower and an abundant bearer. Its exceeding earliness makes it a decided acquisition.

Goethe—A fine, light-colored variety, tinged and nearly covered with red when fully ripe. It has more the flavor of its foreign parent than any of the others, being tender to the center; bunch and berry large; ripens with Catawba.

Hartford Prolific—Valuable in northern localities. Bunches large, compact, shouldered; berry large, round; skin thick; flesh sweet, juicy; vine vigorous and exceedingly productive. Ripens two weeks before the Concord.

Ive's Seedling—Vine healthy, strong grower; fruit bunch medium to large; flesh sweet and juicy, but foxy and puffy; a desirable market grape on account of its good keeping qualities; it colors early, but ripens later than the Concord.

McPike—This grand variety was originated in Southern Illinois. Has taken premiums at Ohio, Illinois, Indiana and Missouri state fairs. The McPike is a seedling of the Worden, perfectly hardy, with leaf unprecedented. It is earlier than the Concord; bunches large, even and compact; berries even in size, covered with beautiful bloom, black in color, ripens uniformly, and has generally the appearance of the Worden. The berries are of mammoth size, being three inches in circumference, and of superb quality; by far the best grape grown.



MOORE'S EARLY

Martha—A seedling from the Concord, which it resembles in growth and hardiness; bunch of good size, and berry large, of pale green or light color; sweet, juicy, sprightly; ripens with Concord.

Moore's Early—Seedling of Concord, combining the vigor, health, and productiveness of Concord, and ten days earlier than Hartford; in quality hardly to be distinguished from Concord. This grape has taken the first prize at the Massachusetts Horticultural Society each year since 1872, when first exhibited, and the $60 prize of the same society for the best new seedling in Fall, 1877. A valuable acquisition. Bunch large; berries very large, black.

Niagara—Bunch medium to large, compact, sometimes shouldered; berries large, roundish, uniform; skin thin but tough, pale green at first, changing to pale yellow when fully ripe, with a thin whitish bloom; flesh slightly pulpy, tender, sweet before it is fully ripe; vine vigorous, healthy and productive; ripens with the Concord.

Pocklington—Seedling from Concord. Originated and raised from seed by John Pocklington, Washington County, N. Y., an elevated, cold locality. The vine is thorough-

NIAGARA.

ly hardy, both in wood and foliage; a strong grower, never mildews in vine or foliage; called a white grape, but the fruit is light yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round and very large and thickly set; quality, when fully ripe, superior to the Concord; ripens with the Concord.

Salem—(Rogers' No. 53). Bunches large and compact; berries large, round; flesh tender, juicy, sprightly, sweet and good; ripens soon after Delaware.

Woodruff Red—Very hardy, a rank grower, and very healthy; the fruit is large in bunch and berry, attractive, shouldered, sweet and of fair quality. Desirable as a market variety; ripens soon after Concord.

Worden—Seedling of Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored, and to ripen several days earlier. These qualities give it the foremost rank among the native Grapes.

Wyoming Red—A very early, medium sized red variety; bunch small but compact; skin bright red; sweet, very agreeable were it not for the slight foxy odor apparent when first gathered.

STRAWBERRIES

THE ground should be prepared the same as for other crops; if not already rich, make it so by manuring. Mark out the rows the desired width, and set plants 12 to 18 inches apart in the rows. If set 12 inches apart in rows 4 feet apart, an acre will repuire 10,890 plants, same as if set 16 inches, in rows 3 feet apart. In early winter, when the ground is frozen, cover the whole with long straw, which should not be removed but allowed to remain on the ground as a mulch, to keep the berries clean the next summer.

Pistillate varieties marked P fertilize with staminate varieties marked S.

Aroma—A popular late variety, especially in West and Middle West. It is a very firm, solid berry, and an excellent shipper. As compared with the Gandy it is about the same season, about the same size, and about the same productiveness; the quality is very fine.

Beder Wood—Large, roundish conical; bright scarlet, moderately firm, fair quality; plant vigorous and very productive. A very valuable early sort for home use or near market.

April 27th., 1906.—Enclosed find draft for $12.40 for pay for nursery stock. Was well pleased with the stock.—H. Cubbison.

Nov. 10th., 1905.—The trees arrived in such a fine condition that no one with a sound mind could have any objection.—C. E. Daugherty.

Brandywine—This variety comes in a good time between mid-season berries and late ones. It thrives on a great variety of soils. It is a large, broad, heart shaped berry, of medium red color, with bright yellow seeds and firm flesh which is red to the heart. These points combined with large size, productiveness, and firmness of texture make Brandywine a very valuable strawberry, especially as it has a peculiarly rich, spicy flavor that charms all who taste it.

BUBACH NO. 5

Bubach No. 5—P. A wonderful berry in vigor of plant and yield of fruit even under careless culture. The fruit is in many instances enormous, and the average is large and handsome. It is exceedingly productive and very valuable for a nearby market. Mid-season.

Captain Jack—S. A most vigorous grower, healthy and productive. Berries large, handsome and solid.

Charles Downing—S. Large, conical, crimson; flesh firm, of fine flavor and good quality; plant healthy, vigorous and productive. A good fertilizer for all pistilate varieties.

Crescent—P. Medium, conical, bright scarlet, very uniform in size. A beautiful berry, beginning to ripen with Wilson's Albany, and continuing in fruit longer. Has been shipped 200 miles without changing color. It is astonishing in its productiveness. The plants are wonderful in growth, taking entire possession of the ground to the exclusion of weeds and grass. At home on all soils.

Cumberland Triumph—S. Berries immense; of fine form and flavor. Plant very vigorous and productive.

Excelsior—S. An early berry, planted extensively. Foliage tall and dark green, some rust; fruit almost round and very dark red. It is a good plant maker and if rows are allowed to become too thick, the last pickings will be small. A few object to it on account of its tart flavor, but we believe you will make no mistake in planting it for an early berry. It is productive, a nice looking berry and a good shipper.

Gandy—S. A reliable late variety; berries bright crimson, very uniform in size and shape, large, firm; plant vigorous and healthy.

Glendale—Fruit large, very firm; quality best for canning. Plant strong grower, and as productive as Charles Downing.

Greenville—P. Resembles Bubach, but is firmer and a better shipper; uniform in size, regular outline, excellent quality. Plant a strong grower, free from rust and one of the most productive.

Haverland—P. Profitable by reason of its productiveness and earliness, but is hardly firm enough for distant shipment; requires deep, heavy soil; plant exceedingly vigorous and healthy; fruit large, handsome and good, though not of the best quality; rather long in shape, and of a bright, glossy crimson: early.

Kentucky—Very large, bright scarlet, sweet and delicious; ripens about a week later than most varieties; fruit firm; a fine market sort. Plant hardy and very productive; valuable for the late market.

JESSIE

Jessie—S. A stout luxuriant grower; foliage light green, large and clean; the berry is very large, continuing large to the last picking; is of a beautiful color, firm quality, good form, having been shipped 600 miles in good condition.

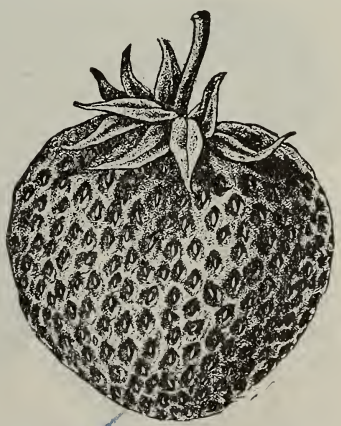
Parker Earle—Produced in Texas in 1886; is very robust, with strong penetrating roots; a model in makeup; endures well the long, hot, dry summers of Texas and in Michigan and New York stands the winter cold equal to any other variety; enormously productive, flower perfect, protected from late frosts by abundance of leaves; trusses strong, long and large; berries regular, conical with short neck, glossy, scarlet crimson, firm, no hollow core, seeds golden; it shows well several days after picking, carries finely in long shipments, presents an attractive appearance in the crate and brings the highest price in the market; season early to medium.

Miner's Prolific—One of the handsomest strawberries, rich in quality, and when the season is favorable very productive.

Robinson—Fruit is large and perfect, firm, and a good shipper. The plant is a good grower and fertilizer; prolific.

Sample—P. A very productive berry, medium to late in ripening; in fact, it should be classed as late, as more of its berries ripen in that season. A good plant maker, of strong, thrifty plants. Fruit above the medium in size, firm, nice color, and holds up well for a long season.

Senator Dunlap—S. A variety that seems to give general satisfaction all over the country. It is a perfect bloomer and an extra prolific plant maker of medium size plants; medium in fruiting season, ripening about the same time as Warfield, and resembling that variety in color and shape of fruit. The Dunlap is very productive, medium to large in size, and very dark red in color when fully ripe. It is firm, and has a peculiarity of remaining on the vines longer after ripening than most varieties without becoming soft. It seems to do well on all kinds of soil and in all sections.



SENATOR DUNLAP

Sharpless—Large; of delicious flavor; good bearer; bright color. Specimens exhibited weighed 1½ ounces, and measured 7 inches in circumference.

Warfield—Possesses beauty, firmness, earliness, good flavor, productiveness. Is not immensely large, but quite satisfactory.

Plant Strawberries in the Spring.

ONE of the choicest of small fruits, coming into use as the Strawberry season comes to an end. Nothing can be more refreshing than a dish of Raspberries. Should be planted four by six feet apart in a deep soil; one that will retain moisture well in a drouth. In training, allow only a few canes to grow from each plant, cutting away all suckers, to throw the strength into the stock for bearing. All old canes should be removed when the bearing season is over. Tender varieties should be protected during the winter in the northern states.

RED RASPBERRIES.

Cardinal—This is certainly the most remarkable plant in cane growth ever introduced. It is a strikingly beautiful bush to look at and this remarkable cane growth is extremely hardy. The thermometer registered 26 degrees below zero the winter of 1898-'99, and it withstood this severe test without apparent injury. Its productiveness is all that could be desired. It will produce twice the amount of fruit of any other purple sort. Color of berry is a little darker than Columbian; a little more acid in flavor; berry rounder, of the same size or larger. It is doubtless the best of its kind ever introduced.

LOUDON

Cuthbert, Queen of the Market—A remarkably strong hardy variety, stands the northern winters and southern summers equal to any; berries are very large, measuring three inches around; conical; rich crimson; very handsome, and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich and luscious.

Loudon—Canes are strong and hardy, and berries

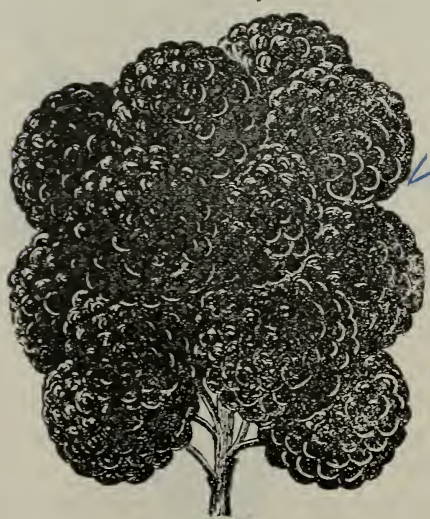
large size, good color, and excellent quality. Its wonderful vigor and hardiness, together with productiveness and fine quality, make it very desirable for either home use or a market fruit.

Strawberry-Raspberry. Rubus Sorbifolius—One of the remarkable recent introductions from Japan. A beautiful dwarf raspberry, seeming from its character to be a hybrid between the raspberry and the strawberry. Bush dies to the ground in the fall, makes a handsome low spreading plant, with dark green foliage. Fruit is early, stands well out from the foliage; size and shape of a strawberry; color brilliant crimson.

Japanese Raspberry. Syn. Wineberry—Berry round, deep red, glossy, handsome and fairly firm. Born in large clusters, and each berry at first tightly enveloped by large calyx, forming a sort of burr, which is covered with purplish red hairs. These gradually open and turn back, exposing wine-colored fruit of medium size, brisk sub acid, retaining flavor when cooked.

BLACK CAPS.

Cumberland—This is a new and especially large Black Raspberry, has been well tested in nearly all sections, giving thorough satisfaction. In hardiness and productiveness it is unexcelled by any other variety. In size the fruit is simply enormous, far surpassing any other sort. The quality is very similar and fully equal to Gregg. The fruit is firm and will stand long shipments. It is a mid-season variety. The bush is exceedingly healthy and vigorous, and well adapted for supporting their loads of large fruit.



KANSAS

Gregg—This is decidedly the largest and most prolific Black Cap that we have ever seen, surpassing in size the famous Mammoth Cluster, averaging when grown side by side with the same treatment, larger. The Gregg is the most popular Raspberry (today) we have in cultivation.

Kansas—Originated at Lawrence, Kansas. It is healthy, vigorous and not subject to leaf blights; produces strong, healthy tips; fruit large, as fine a berry as Gregg and equally as good a shipper; ripens just after the Souhegan; very prolific.

BLACKBERRIES

THESE require the same kind of soil and treatment as Raspberries, except that they should be planted in rows 8 feet wide and 4 feet apart in the row. For self sustaining bushes, clip off the points of the growing canes as soon as the plants are about 4 feet high, and repeat the operation several times, until they assume the form of a bush. Mulching is of great advantage to both Raspberries and Blackberries.

Ancient Briton—Upright grower; berry large. An old and reliable variety of Wales, which should be sufficient guarantee of its hardiness; fruit large, sweet, little to no core. Ripens about mid-season.

Early Harvest—This is the earliest of blackberries, ripening with Mammoth Cluster raspberry. The fruit is of medium size, glossy black and firmer than any other Blackberry known.

EARLY HARVEST

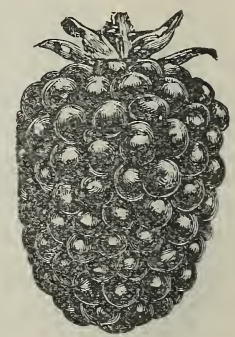
Erie—Cane strong; berry large, almost round, of rich quality, handsome and firm. Plant hardy, vigorous and productive, bending its canes with fruit.

Kittatinny—Begins to ripen soon after Wilson's Early, and continues longer in bearing; is ripe as soon as black, and is much earlier, sweeter and better in all respects than Lawton, which it resembles in plant and fruit. The great fault of Kittatinny is the rust, which sometimes destroys a whole plantation. When it escapes rust the best blackberry known.

Rathbun—Fresh, juicy and high flavored; soft throughout and no hard core; sweet and delicious; carries well to market; propagates from tips.

Snyder—Extremely hardy, enormously productive; fruit of medium size, with no hard sour core; half as many thorns as Lawton, or Kittatinny, and they are straight and short; most prolific Blackberry grown; comparatively free from rust; a safe and profitable berry to plant. Has been a standard market berry over a wide range of country for years. Succeeds and yields well everywhere; is a great favorite north for its hardiness.

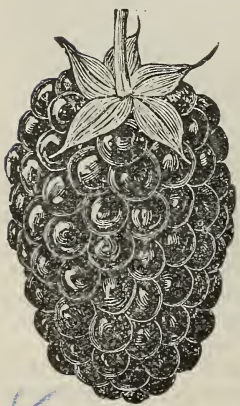
Taylor, or Taylor's Prolific—Strong, upright grower; berry large, late; should be planted with an early kind for a succession of fruit. The strong point with Taylor is endurance and heavy crops. Very successful in bleak New Hampshire and Canada The berry is very sweet and rich in flavor. Can furnish fine Taylor plants grown from cuttings. These have more roots, are stronger, and bring fruit quickly.



SNYDER

DEWBERRY

Lucretia Dewberry—Fruit very large, luscious and handsome; perfectly hardy, a strong grower and enormously productive; a superb and very profitable market fruit. The vines should be allowed to remain on the ground during winter, and be staked up early in the spring.



LUCRETIA DEWBERRY

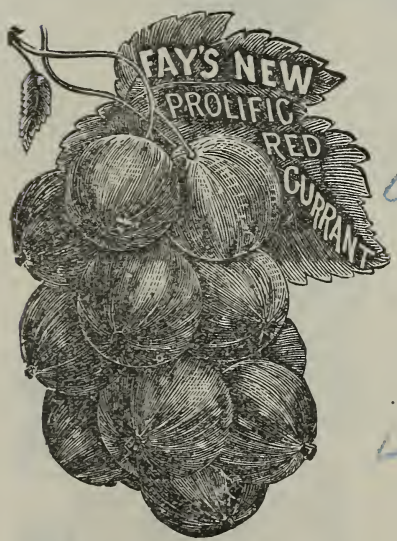
March 26th., 1906.—The first shipment arrived Saturday night, the 24th., just one month from date of shipment. The trees, however, appear to be in good condition, and we think are all right. We trust you will make every effort possible to get behind the other shipment and see that it comes through quickly.—Oregon Nursery Co.

CURRANTS

CURRANTS should be planted in the garden four feet apart. Sawdust or tan-bark should be used as mulch. The Currant flourishes in almost every kind of soil, but to have the fruit in perfection, plant in rich, deep soil, and give good annual pruning and cultivation. When plants are grown as stools or bushes, the older and feebler suckers should be cut out, such as crowd and overbear the plant. When grown in the form of a tree, with single stem, the bearing wood should be trimmed out, and the stem and root kept free of suckers.

Cherry—The largest of all the red Currants. Berries sometimes more than half an inch in diameter; bunches short; plant very vigorous and productive when grown on good soils and well cultivated.

Crandall—A native black seedling of the Western Wild Currant, and much superior to any of the named varieties yet introduced; distinct from the European black varieties and without their strong odor; wonderfully productive, a strong, vigorous grower, usually producing a crop next year after planting, large size, ½ to ¾ of an inch in diameter; easily picked; can be shipped farther and kept longer than any other small fruit, free from all attacks of insect enemies.



Fay's Prolific—Color deep red; a great bearer; stems longer than Cherry and berries hold their size to the end of the stem better; quality first-class, not quite so acid as the Cherry; claimed to be the most prolific and best of all red currants.

North Star—The average length of the bunches is four inches; the berries from a single bunch, thirty in number, placed side by side, touching, covered a line twelve inches in length; the fruit is superior, very sweet and rich in quality, firm, a good market berry, desirable as a dessert fruit in the natural state and unequaled for jelly.

Pomona—This currant, while not the largest, yet is of good size and always attracts the buyer on market. It is a beautiful, clear, bright, almost transparent red, has but few and small seeds, is much less acid or sweeter than any of the common sorts. It is easily picked, hangs a long time after ripe; and is one of the best to hold up in shipping or on the market. It also retains its foliage long after all other sorts have shed most of theirs, thus shading the fruit and protecting it from scalding by the hot sun.

Red Dutch—An old, highly esteemed sort, hardy, and reliable; fruit medium size, bright red and of best quality. It is well to plant some high priced, new kind if you want a pet, but if you want Currants plant Red Dutch.

White Grape—Very large, yellowish white, sweet, or very mild acid, excellent quality and valuable for the table; the finest of the white sorts; very distinct from White Dutch, having a low, spreading habit and dark green foliage; very productive.

GOOSEBERRIES

IN order to produce large abundant crops of Gooseberries it is necessary to manure heavily and prune closely. The English varieties do not require much pruning. Mildew is prevented by close planting and heavy mulching. Plant 3 to 4 feet apart each way.

DOWNING GOOSEBERRY

Downing—Fruit larger than the Houghton; roundish, light green with distinct veins, skin smooth, flesh rather soft, juicy and very good; very valuable.

Industry—The best English Gooseberry yet introduced, of vigorous, upright growth, and greater cropper than any known variety, and less subject to mindew than other English sorts; Berries of the largest size, one and one-half inches in diameter, and of most excellent flavor, both pleasant and rich; color when fully ripe, dark red.

Houghton—A medium sized American variety, which bears abundant and regular crops, and never mildews; fruit smooth, red, tender and very good; very valuable.

Pearl—Native American seedling. It has a vigorous, healthy bush, free from mildew and enormously productive. Berries one-half larger than the superb Downing; rich and sweet. Promises to be the greatest of all American Gooseberries.

HOUGHTON GOOSEBERRY

Red Jacket—A purely American variety rivaling the foreign sorts in size. A strong thrifty grower, entirely free from mildew, very hardy and exceedingly productive. Berries large, smooth, of a beautiful ruby red, and of fine flavor.

Smith's Improved—Large, oval, light green, with bloom; flesh moderately firm, sweet and good; vigorous grower.

DWARF SERVICE OR JUNEBERRY.

Grows 4 to 6 feet high, branches out from the ground like currants, resembles the common Service or Juneberry in leaf and fruit, but the fruit is larger, and in color almost black, beginning to bear the second year after transplanting, and bears profusely.

ASPARAGUS.

To make a good asparagus bed, the plants may be set in fall or early spring. Prepare a piece of fine, loamy soil, to which has been added a liberal dressing of good manure. Select 2-year or strong 1-year old plants, and for a garden set in rows 18 to 20 inches apart with plants 10 to 12 inches apart in the row. Make a small mound of the soil, over which the roots should be evenly spread, so that the crown, when covered, should be three inches below the surface of the ground. If planted in fall, the whole should be covered before winter sets in with two or three inches of coarse stable manure, which may be lightly forked in between the rows as soon as the ground is softened in the spring.

Conover's Colossal—A mammoth variety of vigorous growth, sending up from 15 to 20 sprouts, from 1 to 2 inches in diameter, each year; color, deep green; crown close.

RHUBARB OR PIE PLANT.

This deserves to be ranked among the best vegetables in the garden. It affords the earliest material for pies and tarts, continues long in use, and is valuable for canning. Make the border very rich and deep for this plant.

Linnaeus—Large, early tender and fine. The very best of all.

COINS AND BUDS.

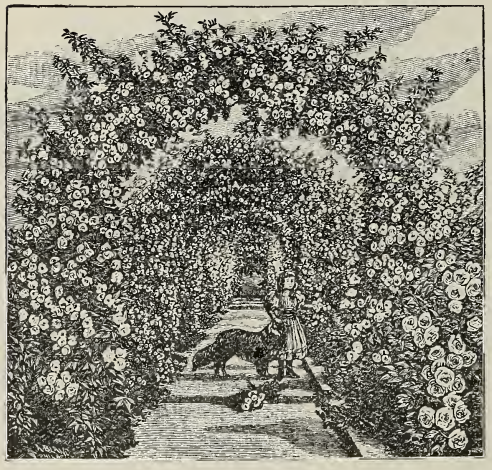
Can be supplied of most varieties of fruits, etc. Prices given on application.

April 10th., 1906.—Trees came Saturday evening. Opened them yesterday and it took all day to get them lined out. Found all correct according to bill and very nice trees.—S M. Irwin.

March 20th., 1907.—Enclosed find draft to your order for $7.44 to cover invoice of stock sent us by express March 13th., which came in good time and fine condition.—The Spencer Seedless Apple Co.

ORNAMENTAL DEPARTMENT.

IT IS now nearly fifty years since the white man began to cultivate, and improve, and make homes, and farms, and cities in Kansas, and Nebraska; and it is a still longer time since such improvements began in Missouri and Iowa, and a less time since such beginnings have been made in Colorado, and Oklahoma and the Indian Territory. At the first it was a struggle for life and a place in which to plant modern civilization, but as time has gone on, the industry and thrift of the people have brought comfort, and taste, and beauty of landscape, and farm and city home that at first were not possible. This taste for beauty and comfort has found expression in the planting of trees and shrubs in park, and home, and school, and along the public highway until what used to be an endless sea of open prairie has become a variegated landscape. Orchards, and hedges, and parks, and timber lands, and lawns planted to trees and shrubs are everywhere found, and as the love of the beautiful and the means to gratify the taste are each year being realized, these plantings of trees and shrubs will be largely increased. In the past the work of planting orchards has largely predominated, but the work of ornamental planting has been increasing rapidly and may be expected in time to come to be given larger attention year by year as time goes on. In view of this the Willis Nursery has in the last few years greatly increased its plantings of ornamentals in all lines, both in quantity and variety, and we are now prepared to supply a much larger trade than we have ever been before.



We recommend to the general planter only the hardiest varieties, as the severity of the winter and sometimes of drouth in summer will often cause failure with many varieties that are especially desirable in other places. Those who have time and will give proper care and protection to such as need care and protection, will be abundantly repaid for their trouble.,

No pains are spared to produce the finest specimens of the best varieties of ornamental trees and shrubs. When you plant ornamental trees and shrubs always cultivate the ground thoroughly till they have become well established and in a thrifty, strong, growing condition. Most deciduous trees and shrubs may be planted either in spring or fall as desired but evergreens will be planted to a better advantage in the spring.

Ornamental trees only require such pruning as will prevent a straggling growth of head and keep the head at a desired height. Shrubs should be pruned so as to bring out the most beautiful natural shape and induce, in flowering va-

rieties, the greatest amount of bloom. With flowering shrubs these principles may be observed: Varieties flowering in the spring should be pruned and pinched, and old wood cut out after flowering from time to time through the growing season, in order to induce growth of flowering wood, and not in the spring before blooming, which would run over the blossom buds. Those like hydrangeas, which bloom late in the season, should be pruned in the spring before they start to grow, since their flowering wood is about to be produced. There is no advantage in trimming all specimens to one form or shearing. The natural beauty of each specimen is to be developed. Hedges should be sheared into regular form.

ORNAMENTAL TREES

WIND-BREAKS of trees, more especially if they are evergreen, make the dwelling house warmer, give comfort to its inmates, and diminish to no inconsiderable extent the consumption of fuel; they make the outbuildings warmer for stock by night, and the yard by day, not only making the dumb animals comfortable, but thereby saving a large amount of food.

Ash, White—A rapid-growing native tree of fine symmetrical outline; a valuable street or park tree, and should be extensively planted for timber, as the demand for this timber is very great for the manufacture of implements, railway cars, furniture, etc.

Balsam. P. Balsamifera.—Balm of Gilead. Of very rapid growth, large, glossy leaves.

Birch, European White. Betula alba.—A well-known tree, with graceful, airy foliage, and silvery white bark; very desirable for the lawn, either as a single specimen or in contrast with other trees in a group.

BECHTEL'S FLOWERING CRAB

Bechtel's Double-Flowered American Crab—One of the most beautiful of the many fine varieties of flowering Crab Apples. Tree of medium size, covered in early spring with large, beautiful, double, fragrant flowers of a delicate pink color. From a distance the flowers have the appearance of roses. A great acquisition. Blooms when quite young.

Box Elder. Ash-Leaved Maple.—A fine, rapid-growing variety, with handsome, light green permeated foliage and spreading head; very hardy, excellent for avenues.

Carolina Poplar—Of good form and robust growth, and desirable where a very large tree is required.

Catalpa. Bungei.—This, on its own root, is a dwarf Catalpa, close, compact shrub, absolutely healthy, hardy; its branches are numerous and short, the broad leaves lay as shingles on a roof, making a dense shade, and when worked eight or more feet high, makes the umbrella-shaped top tree equal, if not even more symmetrical, than the famous Chinese Umbrella tree of the south; being thus worked it has grown five and one-half feet in diameter in two years.

Catalpa. Speciosa.—A variety originating in the west, more upright and symmetrical in its growth than the common Catalpa, and blossoms two or three weeks earlier. Very valuable for timber, fence posts, railroad ties, etc., possessing wonderful durability; a very ornamental and valuable tree.

Cherry. Flore Alba Pleno.—(Large, Double Flowering Cherry). At the period of flowering, a remarkably beautiful and attractive tree; the flowers are so numerous as to conceal the branches and to present to the eye nothing but a mass of bloom, each flower resembling a miniature white rose; a valuable variety deserving wide dissemination. May.

Dogwood. Cornus Florida.—An American species of fine form, growing from 16 to 25 feet high; the flowers are produced in the spring before the leaves appear, are from three to three and one-half inches in diameter, white and very showy, resembling the Clematis flower somewhat; the foliage in autumn is of a deep red color, rendering the tree one of the most beautiful objects at that season.

Elm, American White—The noble drooping, spreading tree of our own woods; one of the grandest of park or street trees.

Horse Chestnut, Common or White Flowering—A very beautiful, well-known tree, with round, dense head, dark green foliage, and an abundance of showy flowers in early spring. As a single lawn tree or for street it has no superior.

Judas Tree, or Red Bud—A very ornamental small tree, native of the western states, which, in the early spring before the leaves appear, is covered with delicate pink flowers. "Nothing can be more beautiful in April or May than a large, round-headed Red Bud, covered with its beautiful flowers, before the bursting of a single leaf."

Locust, Black or Yellow—A native tree of large size, rapid growth, and valuable for shade as well as quite ornamental. The flowers are disposed in long, pendulous racemes, white or yellowish very fragrant, and appear in June.

Locust, Honey, Three-thorned Acacia. Gleditschai Triacanthus.—A rapid-growing tree; delicate foliage, of a beautiful, fresh, lively green, and strong thorns; makes an exceedingly handsome, impenetrable and valuable hedge.

Locust, Rose, or Moss—A native species of spreading, irregular growth, with long, elegant clusters of rose-colored flowers in June, and at intervals all the season.

Linden. American Basswood. Tili Americana.—A fine native tree, with large leaves and fragrant flowers.

Maple, Wier's Cut-Leaved—A Silver Maple, with remarkable and beautiful dissected foliage. Of rapid growth; shoots slender and drooping, giving it a very graceful appearance; should be in every collection.

Maple, Norway—A foreign variety, with large, broad leaves of a deep rich green; probably the best Maple in cultivation.

Maple, Silver Leaved. A Dasycarpum.—Of rapid growth; of great value where a rapid-growing tree is desired; very hardy and easily transplanted; a favorite street or park tree.

Maple, Sugar or Rock. A Saccharinum.—A very popular American tree, and for its stately form and fine foliage, justly ranked among the very best, both for lawn and avenue.

Mountain Ash, European. Sorbus aucuparia.—A very beautiful tree of medium size, with an erect stem, smooth bark and round head; covered during the fall and winter with bright scarlet berries; universally admired.

Mountain Ash, Oak-Leaved. S. quercifolia.—A handsome tree of erect habit and rich green foliage, deeply lobed; very hardy and desirable.

Mulberry, White. Morus alba.—A small-sized tree of slender but very rapid growth; produces fruit of pinkish white color.

Mulberry, Russian—Brought from Russia by the Mennonites. Tree very hardy and rapid grower; fine as a shade tree; bears young and heavily fruit of no great value.

Olive, Russian—An ornamental tree of special value; attains a height of thirty feet or more; bark and leaves light green when young, bark becoming darker as the tree grows older, and the leaves more silvery white; blooms profusely in June in small racemes three inches long, and their fragrance is decidedly sweet and spicy; an excellent lawn tree.

Persimmon Tree. Diospyros Virginica.—A small native tree, with pleasing, shining foliage, and well-known fruit.

Plum, Purple-Leaved. Prunus Pissardii.—Very remarkable and beautiful, with black bark and dark purple leaves; remaining very constant until late in the fall; the new growth is especially bright; the fruit is also red and said to be very good; a great acquisition.

Sycamore. American Plane or Buttonwood.—A well-known tree and one that is well adapted for streets in cities where the gas and smoke are injurious to foliage.

Tulip Tree. Liriodendron Tulipifera.—A native tree of the Magnolia order, remarkable for its symmetry, its rich, glossy foliage, regularly distributed branches and large, tulip like flowers; difficult to transplant unless of small size.

WEEPING DECIDUOUS TREES

Ash, European Weeping. Excelsior Pendula.—The common, well-known sort; one of the finest lawn and arbor trees, covering a great space and growing rapidly.

Birch, Cut-Leaved Weeping—An elegant, erect tree, with slender, drooping branches, and fine, cut leaves. A magnificent variety, and worthy of a place on every lawn. We know of no more beautiful tree than the Cut-Leaved Weeping Birch.

MULBERRY, TEA'S WEEPING RUSSIAN

Elm Pendula. Camperdown—Its vigorous, irregular branches, which have a uniform weeping habit, overlap so regularly that a compact, roof-like head is formed; the finest Weeping Elm.

Mulberry, Tea's Weeping Russian. M. Siberica Pendula.—A graceful and beautiful, hardy tree, forming a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground and gracefully swaying in the wind. Foliage small, lobed, and of a delightful, fresh, glossy green.

The tree is exceedingly hardy, and of rapid growth and abundant foliage, admirably adapted to cemetery planting and susceptible of being trained into almost any shape.

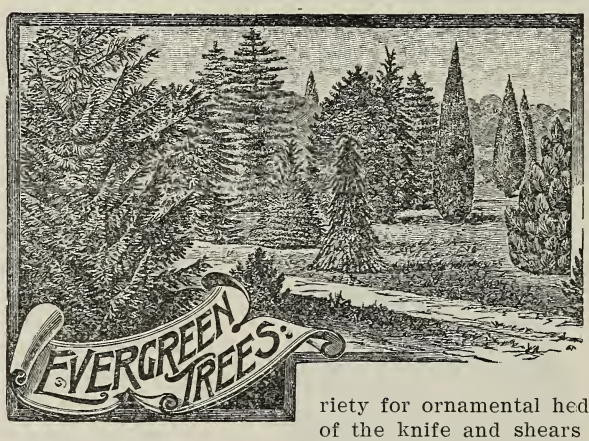
Mountain Ash, Weeping. Aucuparia Pendula.—A beautiful tree, with straggling, weeping branches; makes a fine tree for the lawn; suitable for covering arbors.

Willow, Kilmarnock Weeping. Caprera Pendula.—An exceedingly graceful tree, with large, glossy leaves; one of the finest of this class of trees; very hardy.

Willow, Wisconsin Weeping.—Of drooping habit, and said to be perfectly hardy in the southwest.

EVERGREENS

EVERGREENS are beautiful all the year, and form grand specimens in time. We strongly recommend our customers to plant more largely of hardy sorts. In the windy west they are of special value for screens, hedges and wind-breaks. We offer the best sorts at good rates.



Arbor Vitae, American or White Cedar. Occidentalis.—This is one of the fine medium-sized evergreen trees; one of the best and most available of the evergreens for screens.

It is a native of the coldest part of the country, and there are few places where it will not thrive. Used more than any other variety for ornamental hedging. By the proper use of the knife and shears it can be made to grow into almost any desirable form.

Arbor Vitae, Pyrmidalis.—The most beautiful of all Arbor Vitaes, having dark green compact foliage and remarkably erect form; perfectly hardy.

Arbor Vitae, Siberian.—Grows slower and more compact than the American, of which it is a variety; foliage thicker, more luxuriant, and keeps its color well in winter; perfectly hardy; one of the most desirable and useful evergreen trees in this climate.

Red Cedar.—A well known American Evergreen with deep green foliage; makes a fine ornamental hedge plant. One of hardiest and most reliable. About the only evergreen we know of that is indigenous to Kansas.

Pine, Austrian or Black. Pinus Austriaca.—A native of the mountains of Syria; a rapid growing species with long, stiff, dark, green leaves; very hardy.

Pine, Scotch. P. Sylvestris.—A native of British Islands; very rapid in its growth. A dark, tall evergreen, with bluish foliage and rugged shoots; hardy, and grows well even on the poorest soils.

IRISH JUNIPER

Pine, White. Strobus.—The most ornamental of all our native pines; foliage light, delicate or silvery green; flourishes in the poorest soils.

Juniper. Irish Juniper.—A distinct and beautiful variety of erect, dense, conical outline, resembling a pillar of green; very desirable.

Spruce, American White. Alba.—A tall tree, with compact branches and light green foliage.

Spruce, Colorado Blue. Picea Pungens.—This species has been tested at various points on the prairies of the west and northwest with perfect success, enduring a temperature of thirty degrees below zero, in exposed situations, entirely uninjured. This is not only one of the hardiest, but the most beautiful in color and outline; foliage of a rich blue or sage color; it is a valuable acquisition.

Spruce, Hemlock. Canadensis.—A remarkably graceful and beautiful native tree, with drooping branches and delicate, dark foliage, like that of the Yew; distinct from all other trees; it is a beautiful lawn tree and makes a highly ornamental hedge.

Spruce, Norway. Abies Excelsa.—A lofty, elegant tree, of perfect pyramidal habit, remarkably elegant and rich, and as it gets age has fine, graceful pendulous branches; it is exceedingly picturesque and beautiful; very popular, and deservedly so, and should be largely planted; one of the best evergreens for hedges.

Savin. Sabina.—A low spreading tree with handsome dark green foliage; very hardy and suitable for rock work.

NORWAY SPRUCE.

Feb. 24th., 1906.—Stock came in yesterday, opened up in fine shape. Will remit for same in a few days. Expect we will need more stock.—Springer & Springer.

May 14th., 1906.—Yours of May 8th received. I shall probably want to deal considerably with you this fall. I can buy a little cheaper of other parties but their packing is not so good and they are not so prompt in their shipment.—W. W. Thomas.

May 7th., 1906.—Inclosed please find P. O. money order for $10.35 which is the amount due you for nursery stock received. Many thanks for your kindness in giving me the time I wanted. The Roses you sent me were fine indeed and shall want more from you another season.—H. F. F. Thorup.

DECIDUOUS SHRUBS

PRUNING, ETC. Straggling growers, like the Forsythia and Pyrus Japonica, should be repeatedly pinched back or clipped during the growing season, to produce a close, compact form. Weigelas and Deutzias should be pruned like currants, leaving the strong young wood to flower. Althaeas, and some of the Spiraeas, with bloom on the new shoots, may be pruned back each year to the old wood. A very beautiful hedge can be made by intermingling different flowering shrubs, and clipping, or allowing them to grow naturally.

Althaea, or Rose of Sharon. Hibiscus.—These are especially valuable because of their flowering in the fall, when nearly all other shrubs are out of bloom; entirely hardy and easy of cultivation.

Althaea, Double Purple. H. Purpurea.—Double; reddish purple; fine.

Althaea, Totus albus—Double white, with pink center.

Althaea, Variegated-Leaved Double Purple—A very showy, distinct kind; leaves variegated with light yellow, flowers double purple.

Almond, Dwarf Double Rose-Flowering. Amygdalus.—A beautiful shrub, with small, double, rosy blossoms, closely set upon the twigs before the leaves appear.

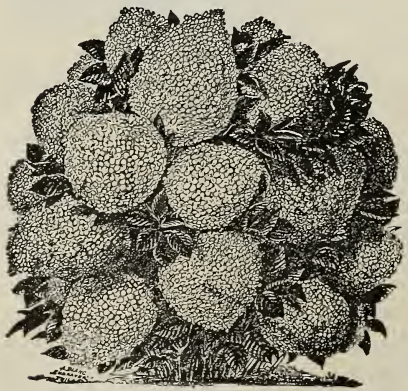
Almond, Dwarf Double White-Flowering. A. pumila alba. An abundant bloomer.

Calycanthus, Sweet-scented Shrub or Allspice—An interesting shrub, having a rare and peculiar fragrance of wood and flowers; its blossoms are abundant, and of peculiar chocolate color.

Deutzia, Slender-Branched. D. gracilis.—A charming species, introduced from Japan by Dr. Siebold; flowers pure white. Fine for pot culture, as it flowers freely at a low temperature in winter.

Euonymous. Burning Brush. Syn Strawberry Tree. A very ornamental and showy shrub. The chief beauty consists in its brilliant, dark red berries, which hang in clusters from the branches until mid-winter; planted with a background of evergreens, the effect of contrast is very fine; leaves scarlet in autumn.

Forsythia—Leaves dark green; flowers bright yellow, opening very early in spring. A fine, hardy shrub.



HYDRANGEA

Honeysuckle, Upright Red Tartarian. Lonicera.—A well-known shrub; flowers bright pink, which appear in May.

Honeysuckle, White Tartarian—Like the preceding, but has dull, white flowers.

Hydrangea, Large-Clustered—A fine, large shrub, bearing showy panicles of pink and white flowers in the greatest profusion. It is quite hardy, and is altogether a most admirable shrub for planting singly, or on the lawn in masses.

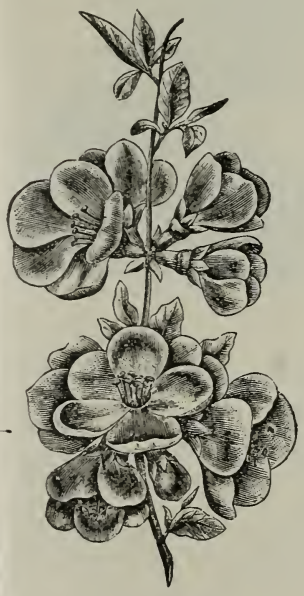
Lilac, Common Purple—One of the hardiest, best shrubs; very well known and popular.

Lilac, Large-Flowering White. S. al-

ba grandiflora.—Has very large panicles of pure white flowers; considered the best.

Plum, Pink-Flowering. Prunus triloba.—Flowers semi-double, delicate pink, closely set along slender branches, and appearing early in spring.

Privet, Common. Ligistram valgare.—Has delicate foliage, pretty, white flowers and bunches of black berries; in warmer climates it is an evergreen; the leaves hang on very late. A valuable hedge plant.



JAPAN QUINCE

Privet, California. Ovalifoliam.——A desirable shrub, nearly evergreen, that produces delicate, white flowers in great profusion; the flowers possess a pleasant heliotrope fragrance.

Purple Fringe, or Smoke Tree.—A conspicuous small tree, of spreading habit, covered in midsummer with a profusion of dusky, fringe-like flowers.

Quince, Japan—Bright scarlet flowers in early spring. Makes a beautiful and useful hedge.

Spiraea. Meadow Sweet.—The Spiraeas are all elegant low shrubs of the easiest culture, and their blooming extends over a period of five months.

Spiraea, Billardi. Billard's Spiraea.—Rose colored, blooms nearly all summer.

Spiraea, Van Houtti.—One of the most charming and beautiful of the spiraeas, having pure white flowers in clusters or panicles an inch in diameter; astonishingly profuse in bloom, and plants remarkably vigorous and hardy. But recently introduced from France, and there is no more desirable flowering shrub in cultivation.

Syringa or Mock Orange—The Syringa is a large shrub, growing from 6 to 10 feet high. Vigorous habit, very hardy, with large handsome foliage and beautiful white flowers. Very fragrant. Blooms very freely. Hardy.

Snow Ball. Viburnum Sterilis.—A well known favorite shrub, of a large size, with globular clusters of white flowers in June.

Weigelia—A beautiful shrub, with deep, rose-colored flowers.

SPIRAEA VAN HOUTTI

WEIGELIAS

White Fringe—One of the best shrubs or small trees, with superb foliage, and delicate, fringe-like white flowers.

DECIDUOUS HEDGE

Honey Locust—Very hardy and desirable for the north.

Japan Quince—Unquestionably a fine plant for an ornamental hedge. Grows very compactly; Will submit to any amount of pruning, while the brilliant and showy scarlet flowers make it exceedingly attractive.

Osage Orange—Highly esteemed in the west and south; not hardy enough for the northern states.

HARDY CLIMBING AND TRAILING SHRUBS.

Ampelopsis Veitchii—Syn. Boston Ivy. Foliage smaller than those of the American and more dense, forming a sheet of green. The plant is a little tender while young, and should be protected the first winter. When once established it grows rapidly and clings to a wall or fence with the tenacity of ivy. The foliage, while handsome in summer, changes to a crimson scarlet in autumn and is very beautiful for covering walls, stumps of trees, rockeries, etc., and for ornamentation of brick and stone structures it has no equal.

Ampelopsis, Quinquefolia Syn. Virginia Creeper —A native vine of rapid growth, with large, luxuriant foliage, which, in the autumn, assumes the most gorgeous and magnificent coloring. The blossoms which are inconspicuous, are succeeded by handsome, dark blue berries. The vine is best calculated to take the place in this country of the celebrated English ivy, and is really in summer not inferior to it.

Bignonia, or Trumpet Flower, Scarlet Radicans—A splendid climber, vigorous and hardy with clusters of large, trumpet-shaped flowers in August.

CLEMATIS

CLEMATIS JACKMANNI

Clematis, or Virgin's Bower—The different varieties and species of Clematis now in cultivation are of the highest beauty and utility. They vary greatly in their foliage and flowers, and are adapted to various uses; some of them, such as our common native sort (C. Virginiana), and the European Virgin's Bower (C. Flammula), are quite fragrant, and are particularly attractive on that account. The large-flowered varieties, like the well known (C. Jackmanni), are extremely showy. These plants when trained on trellises, and over porches, pillars and rockwork, produce great masses of bloom, which make a grand appearance, especially when contrasting colors are in proximity. Good, rich, deep, sandy loam, mulched in winter with well rotted manure, where it has partial shade and a liberal supply of water at the roots, will produce the best results both in vigor of plant and richest sheets of bloom.

Clematis, Coccinea—Distinct from other varieties, bright, coral, scarlet flowers; July to October.

Clematis, Henryi—Fine, large, pure white; one of the best long bloomers.

Clematis Jackmanni—A very profuse blooming variety, with flowers from four to six inches in diameter, of an intense violet-purple color, borne successively in continuous masses on the summer shoots.

Clematis, Madam Edouard Andre—A new French variety, entirely distinct and most novel. The nearest approach to a bright red yet produced. This clematis was exhibited at the World's Fair, Chicago, in the French department, and attracted great attention, owing to the brilliancy of its flowers. The plant is a strong, vigorous grower, being a hybrid of the popular Jackmanni variety, which it resembles in freedom of bloom, strong, vigorous growth, shape and size of flowers.

Clematis, Paniculata. Sweet Scented Japan Clematis—A Japanese plant, possessing unusually attractive merits. A vine of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy, green foliage. The flowers are of medium size, pure white, borne in immense sheets, and of a most delicious and penetrating fragrance. The flowers appear in September, at a season when very few other vines are in bloom.

Clematis, Ramona—A strong, rampant grower, and very hardy. Free and perpetual bloomer; flowers large; color, a deep, sky blue.

HALL'S JAPAN HONEYSUCKLE

Honeysuckle Lonicera Belgica—Monthly fragrant, or Dutch. Blooms all summer; very sweet, red and yellow flowers.

Honeysuckle, Hall's Japan—Nearly Evergreen; flowers pure white, changing to yellow, producing abundantly; fragrant like a Jassemine; the best bloomer of all.

Honeysuckle, Yellow Trumpet Aurea—A well known variety, with yellow and trumpet flowers.

Honeysuckle, Scarlet Trumpet, Sempervirens—This and its varieties are the handsomest in cultivation; it is a strong, rapid grower, and produces scarlet, inodorous flowers all summer.

Wistaria, Chinese Sinensis—A most beautiful climber of rapid growth, and producing long, pendulous clusters of pale blue flowers; when well established makes an enormous growth, is very hardy, and is one of the most superb vines ever introduced.

Wistaria, Chinese White—Introduced by Mr. Fortune, from China, and regarded as one of his greatest acquisitions.

ROSES

OUR Plantation of roses this year is the largest it has ever been, and as the demand is largely increasing from year to year, it is our purpose to make a much larger plantation next year than we have this year. No plant is more beautiful than a nicely-cared-for rosebush, and no plant cultivated offers so large a return in brightness and beauty as the rose. Our plants are mostly grown on their own roots, as we have found more satisfaction with these than with budded roses. We do not offer tender roses. We can, however, if a considerable quantity is needed, secure them, and shall be glad to do so on as favorable terms as the number and kinds needed will permit. All roses will keep better through the winter if late in the fall they are laid down and lightly covered with earth or wrapped so as to save them from especially severe weather. To secure the best results, plant in rich, garden soil and cultivate well, and when you have done all this implies, then go over the ground again carefully. There is no plant that will respond more fully to kind treatment than the rose. It is a strong feeder, and when neglected or poorly cared for will suffer very quickly.

Remedy for Mildew.—Mildew is perhaps the most injurious rose disease. It is generally caused by extremes of heat and cold, and by long-continued damp, cloudy weather. The best remedies are sulphur and soot. One of these should be applied at once if this disease makes its appearance. It is a good plan to sprinkle the plants with water so that the substance will adhere.

HYBRID PERPETUALS, OR REMONTANTS.

This group comprises, for the most part, the roses for the multitude. They are mostly hardy, vigorous, easy of culture. As a general rule, they thrive best in well-prepared loam. Close pruning is generally required, but should be regulated to some extent by the rate of growth of each variety, those of vigorous habit requiring to be cut back more than those of slower growth. The flowers range from purest white to deepest crimson, with intermediate shades of pink, blush, cherry, carmine and peach. The term "Perpetual" may lead some to think that they are as constant blomers as the Everblooming Roses. This is not the case. They flower freely in the spring and at short intervals during the summer and fall.

American Beauty—An everblooming Hybrid Perpetual. The flowers are very large, of beautiful form and very double; color, a deep, rich rose. The fragrance is delightful, resembling La France.

Anne de Diesbach—Carmine, beautiful shade; moderately full and very large.

Black Prince—Dark, velvety crimson, almost black; a good grower and a most magnificent rose.

Baron de Bonstetten—Rich, velvety maroon; large, full; a splendid sort.

Baronne de Maynard—Pure white, medium-sized flowers; good form; very double and one of the most persistent bloomers.

Clothilde Soupert—Medium size, very double and beautifully imbricated like an aster, produced in clusters, pearly white with rosy centers, liable to vary. Valuable for florists or as a pot plant, being a remarkably free and constant bloomer and of easy culture.

Coquette des Blanches—Pure white, flowering in clusters; a very free bloomer.

Coquette des Alps—White, lightly shaded with carmine; of medium size; a free bloomer.

Dinsmore—A true perpetual, flowering very freely the whole season; flowers large and very double; color, deep crimson. The plant is of a dwarf, bushy habit, every shoot producing a bud.

Duchess of Edinburg—Brilliant scarlet crimson, maroon shade; very fine.

Earl Dufferin—A strong, healthy growing sort, and a splendid autumn bloomer; flowers large, very full and finely formed; color deep, velvety crimson, shaded with maroon.

Glorie de Margottin—Rich, dazzling crimson; makes beautiful, long-pointed buds; flowers, when open, large and of good shape; a vigorous grower and remarkably free flowering.

GEN. JACQUEMINOT

General Jacqueminot—Brilliant crimson scarlet; very showy and effective; good grower, free bloomer; one of the most popular roses. Especially valued for its large and elegant buds.

General Washington—Brilliant rosy carmine, large and double; a vigorous grower and generous bloomer.

Hermosa—An excellent rose; blooms in fine clusters; very double and fragrant; color beautiful clear rose, a constant bloomer; hardy; one of the best.

John Hopper—Deep rose, with crimson. One of the best.

La France—Beautiful pale peach more highly flushed at center; equal in delicacy to the Teas and greatly surpasses the Tea Rose in hardiness. Very large and full, highly perfumed; none more profuse in blooming.

Madame Chas. Wood—One of the most beautiful Hybrid Perpetual Roses ever introduced. The flower is extra large, full and double; color deep rosy crimson, sometimes brilliant scarlet, with maroon shading; it blooms soon after planting out and continues to bloom all summer.

Marshal P. Wilder—A fine new rose raised by Ellwanger & Barry; resembles Alfred Colomb in color; said to be more vigorous and hardy.

Margaret Dickson—White with pale flesh center petals; very large flowers of magnificent form, both in bud and when fully open; plant perfectly hardy. A vigorous grower; very fragrant

Mrs. J. H. Laing—One of the finest roses of its class. It is very free flowering, commencing to bloom early and continues to bloom until autumn; color a soft delicate pink with a satin tinge; very fragrant.

Mary Washington—A wonderfully profuse bloomer; flowers medium size, white or light pink; continues in profuse bloom the entire season.

PAUL NEYRON

Paul Neyron—Deep rose; very large, very full; somewhat fragrant; free blooming; the largest variety known.

Pierre Notting—Large, very full, globular, dark red, or crimson, shaded violet; fragrant; vigorous; one of the very best dark roses.

Prince Camille de Rohan—Very dark, rich, velvety crimson, passing to intense, maroon-shaded black; large full flowers, looking, at a little distance, as if nearly black; one of the darkest roses; very handsome.

Ulrich Bruner—Raised from Paul Neyron; brilliant, cherry-red flowers of fine form and finish, petals of great substance; plant vigorous and hardy; one of the best varieties for forcing and open air culture.

Victor Verdier—Clear rose; globular, of fine form, and a free bloomer; superb.

Vick's Caprice—Beautiful pink flowers of fine size, striped and dashed with white and carmine; especially pretty in bud form. A very vigorous and free blooming rose.

MOSS ROSES.

Well known, extremely hardy. Some of them blossom in the autumn, and are so-called "Perpetual Moss."

Blanche Moreau—Pure white, large, full and perfect form.

Crested Moss—Deep pink buds, surrounded with a mossy fringe and crest; fragrant; one of the best.

Countess of Murinais—White, slightly tinged with flesh; the best white moss.

Glory of Mosses—Pale rose, very large, full and beautiful.

Perpetual White—Pure white; blooms in large clusters.

Red Moss—Fine, red flowers and elegant mossy buds

Salet—Clear, rose color, very double; of vigorous growth and abundant bloom. Perpetual.

CLIMBING ROSES.

These are admirably adapted for covering walls, trellises, old trees, unsightly buildings, etc. Their rapid growth, perfect hardiness, luxuriant foliage, immense clusters of beautiful flowers commend them at once to everyone.

Baltimore Belle—Pale blush, almost white; double; very beautiful; fragrant.

Dorothy Perkins—This is a splendid, new, shell pink, climbing rose. The flowers are formed in clusters of thirty to forty flowers; large and double; fragrant and hardy.

Empress of China—Light red, changing to pink when fully expanded; a free and continuous bloomer; flowers medium size.

Greville, or Seven Sisters—Large clusters of bloom ,shaded to dark red.

Queen of the Prairie—Bright rose color; large, compact, and globular; a very profuse bloomer. One of the best.

RAMBLER ROSES.

A new class of roses that a few years ago were presented to the public as candidates for popular favor. Their great popularity and beauty at once made them popular and today the Crimson Rambler is more called for than any other kind. Yellow and White Rambler are also very popular and very large numbers of them are sold everywhere. All the Ramblers except Baby Rambler are strong-growing climbers. The Baby Rambler is a dwarf and blossoms during the winter season. We are sure all the Rambler roses will please our customers.

CRIMSON RAMBLER.

Baby Rambler. (Dwarf Crimson Rambler).—The greatest blooming Rose in the world. It blooms in the field all summer. It blooms in the house all winter. It blooms all the time. It is perfectly hardy everywhere. We have a large stock of this wonderful Rose and our plants are strong, vigorous and healthy. No flower Garden or Window complete without it.

Crimson Rambler—This remarkable rose was originally received from Japan. The plant is of vigorous growth, making shoots of from eight to ten feet high in a season, and is therefore a most desirable climbing variety, though it also may be grown in bush form. The flowers hold their beautiful crimson color a long time without fading, and give a most magnificent effect in contrast to the bright, glossy foliage. Is entirely hardy, and the greatest acquisition among roses for the past ten years.

Pink Rambler—In foliage and habit of growth much like the white Rambler except the flowers are a bright pink instead of white.

White Rambler. Thalia—In habit of growth, foliage, manner of blooming, and shape, flower is identical with Crimson Rambler, differing only in color, which, in Thalia, is pure clear white.

Yellow Rambler—A new, hardy, yellow, climbing rose, blooming after the same manner as the Crimson Rambler, in large clusters; flowers of medium size, in immense clusters, often thirty-five to forty flowers in a single cluster; very sweet-scented. Color, a clear, decided yellow; has successfully withstood, unprotected, a continued temperature of from zero to two degrees below, proving it to be the hardiest of all yellow climbing roses. It is a rampant grower, a strong plant; in full bloom makes one of the finest pillar or porch plants imaginable.

SUMMER ROSES.

Harrison's Yellow—Double, bright yellow; very showy and fine.
Madame Plantier—One of the finest pure white roses, blooming in clusters.
Persian Yellow—Deep, golden yellow, double and very fine.

STANDARD AND HALF STANDARD, OR TREE ROSES.

These are the roses of any of the previous sort that are budded or grafted on the free or cultivated stock of the Dog or Briar Rose, from eighteen inches to five feet from the ground, and form fine dwarf trees; and when properly cultivated and cared for make a very fine novelty, and should be in every well regulated lawn. Should be removed to the cellar, pit, or greenhouse during the winter.

HERBACEOUS PAEONIES

THESE are all showy, beautiful flowers, perfectly hardy, easy to cultivate; flowering early in the season, before the rose. They deserve a place in every garden. There are numerous varieties, and of many colors. We are pleased to offer the following as being among the best:

HERBACEOUS PÆONIES.

Rose Colored—Blossoms large, rosy red, changing to crimson.

White—Full, round and large, beautiful and fragrant; one of the best.

Dark Red—Large blossoms; rich dark red; very fine.

A large assortment can be supplied if desired.

YUCCA, SPANISH BAYONET

A PLANT of grand appearance. The stem is three feet above the ground, covered with large, bell-shaped flowers on laterals, forming a perfect pyramid.

Filamentosa. (Adam's Needle.)—Thread-leaved, creamy white, three to four feet; July.

Directions

For Preparing and Using Bordeaux Mixture, and the Principal Insecticides.

The Bordeaux Mixture is the principal fungicide. Its use will prevent scab, rot, mildew, and other diseases to which plants are liable. Its regular application will insure a healthy, vigorous plant growth and will produce both more and better fruit. See the spray calendar for time of application.

Formula for Making: Copper Sulphate, 6 pounds; Fresh Lime, 4 pounds; Water to make 50 gallons.

Fill a barrel about one-half full of water. Place the copper sulphate in a coarse cheese-cloth bag and suspend in the water near the surface, where it will dissolve in a very short time. In another barrel place the fresh lime (not air-slaked), and add a small amount of water to it. As the lime becomes slaked, add more water from time to time and stir well during the slaking. Then add the lime water to the copper sulphate solution, and the mixture is ready for use. In adding the lime water, it is best to pass it through a sieve. Never add the lime water while hot. When spraying on a large scale, it is best to slake a large quantity of lime at one time, as it will keep indefinitely if covered with water. Dissolve the copper sulphate as directed above, and add sufficient of the lime water for each barrel of mixture as it is prepared. This is much better than stock solutions. To determine when enough lime water has been added, use a few drops of Ferrocyanide Test. If it quickly changes color, add more lime water. When enough lime water has been used the test will not change color.

To Prepare Ferrocyanide Test, dissolve one ounce of ferrocyanide of potassium (yellow prussiate of potash) in five ounces of water. Bottle for use.

Paris Green is an excellent insecticide for the destruction of insects that eat foliage. Its use for the destruction of the potato beetle is familiar to all. It should be used in the proportion of one pound of the green to two hundred gallons of water, or a teaspoonful of the green to a bucket of water. The green should first be made into a thick paste with a little water, before being added to the full amount of water. Lime water added to the solution will prevent any damage to the foliage and also make the mixture adhere better.

Arsenite of Lime as an insecticide has been proven better and cheaper than Paris Green. It will not injure tender foliage if applied as directed.

Formula: White arsenic, half pound; sal soda, two pounds; water, two quarts.

Boil together until arsenic dissolves. Add two pounds of slaked lime to each pint of the above solution for one barrel (50 gallons) of water, and it is ready for use.

Green Arsenoid and Paragreen are cheaper than Paris Green, and better, as they do not settle so quickly, and are fully as destructive to insect pests.

Much time will be saved by combining the Bordeaux Mixture and the insecticides, in spraying fruit trees for the destruction of insect pests and prevention of fungous diseases in one application. Use same quantity of each, as though spraying independently with each.

Poisonous Liquids do not readily adhere to cabbage and other plants having glossy foliage. It is sometimes desirable to use arsenites instead of kerosene, and the use of the following preparation will facilitate their use:

Water, 2 gallons; fish oil, 1 quart; concentrated lye, 2 pounds; pulverized resin, 10 pounds.

Heat the resin and oil with the water until the resin is dissolved. Add the lye and 8 gallons of water, and boil until the mixture will unite with cold water. It may take two hours. Add water to make 10 gallons. When ready to spray, use one gallon of above to 20 gallons of water, and two or three gallons of lime water, with the usual amount of insecticide.

The Lime, Sulphur and Salt Solution is the invariable remedy for the San Jose scale in California and much of the Pacific Coast, and wherever the weather conditions happen to be favorable, duplicating, in a measure, the conditions of the Pacific Coast. This wash is effective in the East also. It has the advantage of leaving a limy coating on the trees, which acts as a deterrent to the young scale lice, and where it is not washed by rains, retains its value as an insecticide coating for some time, remaining in evidence on the trees for several months.

Formula: Unslaked Lime, 40 pounds; Flour of Sulphur, 20 pounds; Common Salt, 15 pounds; Water to make 60 gallons.

Take 10 pounds of lime and 20 pounds of sulphur and boil thoroughly in 20 gallons of water for an hour and a half. When the solution assumes an amber color it is an indication that the sulphur is all dissolved. The remainder of the lime, 30 pounds, should be slaked thoroughly by pouring hot water over it, adding 15 pounds of salt while it is still boiling, and stirring until the salt is all dissolved. The lime and salt material should then be added to the lime and sulphur material, and thoroughly stirred together a half hour longer. Enough water should then be added to make the full 60 gallons.

Experiment Stations publish bulletins concerning the crops grown in their respective states. The Department of Agriculture also issues bulletins regarding various orchard and field crops. Methods for spraying such crops can be learned from these bulletins.

SPRAYING CALENDAR

We take pleasure in presenting a brief calendar and directions for spraying. We believe these directions will be an assistance to many customers, and recommend them to be used where needed. For those who desire to make extensive use of insecticides and fungicides, we recommend they consult larger books, making a specialty of this work.

NAME OF PLANT	VARIOUS APPLICATIONS OF SPRAYING SOLUTIONS.				INSECTS AND FUNGI.
	First Spraying.	Second Spraying.	Third Spraying.	Fourth Spraying.	
Apple	When buds are swelling apply Bordeaux.	Before blossoms open, Bordeaux, Add Paris Green or Arsenite of Lime for Canker Worm or Bud Moth	When blossoms have fallen, Bordeaux and Paris Green, or Arsenite of Lime	Twelve days later, Bordeaux and Paris Green, or Arsenite of Lime.	Codling Moth, Canker Worm, Bud Moth, Apple Scab.
Pear	Before buds swell, Bordeaux.	Before blossoms open, Bordeaux. Kerosene if Psylia is present.	After Blosoms fall, Bordeaux and Paris Green, or Arsenite of Lime.	Fourteen days later, Bordeaux and Paris Green, or Arsenite of Lime.	Codling Moth, Leaf Blight, Cab and Psylla.
Plum	Just before buds open, Bordeaux and Paris Green, or Arsenite of Lime.	After blossoms fall, Bordeaux and Paris Green, or Arsenite of Lime.	Twelve days later, Bordeaux and Paris Green, or Arsenite of Lime.	Kerosene, when Aphis or Scale is present.	Curculio, Rot, Aphis and Scale.
Cherry	Just before buds open, Bordeaux, Kerosene, whenever Aphis is present.	When fruit has set, Bordeaux.	Twelve days later, Bordeaux, if signs of Rot are present.	Kerosene, if Aphis is present.	Rot and Aphis.
Peach	As buds are swelling, Bordeaux.	Before blossoms open, Bordeaux and Paris Green or Arsenite of Lime.	After blossoms have fallen, Bordeaux and Paris Green, or Arsenite of lime.	Two weeks later, Bordeaux and Paris Green.	Rot, Mildew and Curculio.
Grape	When buds begin to swell, Bordeaux, Paris Green or Arsenite of Lime if Steely Bugs or Flea Beetle appear.	As buds are opening, Bordeaux.	Two weeks later, Bordeaux.	Two weeks later, Bordeaux.	Rot and other Fungous Diseases, Steely Bugs, Flea Beetle and Thrips.
Potato	When plants are well up, Bordeaux, Paris Green or Arsenite of Lime, if Beetles appear.	Two weeks later, repeat first application.	Two weeks later, repeat.	Two weeks later, repeat.	Leaf Blight and Colorado Beetle.
Cabbage	When worms appear, Kerosene, Paris Green or Arsenite of Lime. See Resin Mixture formula.	Two weeks later,, repeat, if worms are present.	Two weeks later, repeat, if worms are present.	if worms are present. Two weeks later, repeat,	Cabbage worms.

HERALD PRINT, OTTAWA, KAN